AL. 1, 1435
c-2

CANADIANA

OCT 8 1997

Measuring Up

SECOND ANNUAL REPORT
on the performance
of the
GOVERNMENT OF ALBERTA

1995-96 Results

JUNE 1996

Alberta
GOVERNMENT OF ALBERTA

Digitized by the Internet Archive
in 2017 with funding from
University of Alberta Libraries

https://archive.org/details/measuringupannuaalbe_1

Measuring Up

Table of Contents

Introduction 1

Auditor General's Report 3

A Set of Core Measures
- *People* 4
- *Prosperity* 30
- *Preservation* 70

Appendix 1 - Ministry Measures 89

Appendix 2 - Societal Indicators 95

Feedback Questionaire 115

Measuring Up

People

Educational Attainment
Literacy and Numeracy
Life Expectancy at Birth
Health Status
Births to Children
Family Income Distribution

Prosperity

Taxation Load
Net Debt
Per Capita Gross Domestic Product
Provincial Credit Rating
Job Creation
Skill Development
Workplace Climate
Resource Wealth
Export Trade and Transportation to Markets
Spending on Research and Development
Cost of Government

Preservation

Crime Rate
Serious Youth Crime
Resource Sustainability
Air Quality
Water Quality
Land Quality

Measuring Up

Introduction

Measuring Up is the second annual report to Albertans on the performance of government. The report serves two important purposes.

First, accountability. This report is being released at the same time as the annual financial statements. Those statements describe the state of the government's financial situation at the end of the budget year - how much money we received in revenues, how much we spent and how, and whether or not we ended the year with a surplus or a deficit. *Measuring Up* provides the other essential component of accountability - it tells Albertans what was achieved with the money that was spent.

The second purpose is improving results and providing quality programs and services for Albertans. Unless we set clear goals, then measure our performance against the targets we set, we won't know if the actions we're taking are making a positive difference. The goals are set in government's business plan. It drives the development of strategies and performance measures. By measuring and tracking results, we can look at what's working well and what isn't. We can make choices about continuing certain programs, improving them, or abandoning them entirely and trying a new approach.

Measuring Up compares actual results to desired results or targets in the government's three core businesses: people, prosperity and preservation. It reflects the goals set in government's business plan.

This second edition of *Measuring Up* provides results for the 1995-96 fiscal year. Generally, it shows that, on most of the core measures, government is continuing on track, making progress towards the targets set in the first report.

What are core measures?

This report includes information on 23 core measures. Why core measures? The answer is it's impossible to measure everything, and as important as measuring results is, it can't become such a large and expensive task that we lose sight of the objective. That's why we've selected a set of core measures. They aren't intended to give the entire picture of government's performance. Each ministry also has a set of 6 - 10 key measures they have identified in relation to the goals and objectives in their own business plans. Taken together, the core measures and the ministry measures track progress towards the government's goals.

Identifying core measures is important for two reasons. First, it reflects government's priorities. Each measure is a statement of what the government sets as priorities for each of its core businesses. By defining its priorities, the government is providing essential information for the public to judge its performance.

The second reason is to simplify the process — to cut to the heart of what's most important. Think of driving your own car or truck. You need basic information as you drive to let you know that everything is working well. You need some critical gauges on the dash to let you know if you have enough gas, if you're low on oil, how fast you're going and to remind you to do up your seatbelt. But you don't need the same detailed information your mechanic might see when he runs your car through a diagnostic system to see why you get that strange clanging noise in your engine.

Core measures are like the gauges on your dashboard. They reflect the critical information we need to know that we're moving ahead to the targets we set. Ministry measures are closer to the type of measures your mechanic needs.

We need both levels of information in order to keep everything in smooth running condition, operating efficiently and moving forward in the direction we set.

A note about this year's report

This second edition of *Measuring Up* provides results for the 1995/96 fiscal year. People familiar with the first report will see some important changes in the second edition - the addition of strategies to illustrate what government is doing to achieve its goals, an expanded section on each goal, an introductory section for each of the core businesses providing highlights and some of the challenges ahead, and a list of ministries with primary

responsibility for each of the core measures. We have also included the list of ministry measures in an appendix to this report.

In several cases, information is not available for the 1995/96 fiscal year. However, in all cases, we've used the most up to date information available and will keep updating the information every year.

From year to year, people will see changes in *Measuring Up*. We may choose to delete certain measures and replace them with better ones. We may add measures to track important issues of concern. Our goal is not only to show better results. It's also to develop better ways of measuring results and reporting those results to Albertans.

We encourage people to read *Measuring Up* and let us know what you think. There's a feedback sheet at the end for you to mail or fax back to us with your comments. You can also reply on the Internet (WebMaster@treas.gov.ab.ca).

Report of the Auditor General

on the Results of Applying Specified Auditing Procedures to Core Performance Measures

To the Provincial Treasurer

This is the second public report on core performance measures by the Province of Alberta. The reporting and auditing of performance measures in the public sector continues to be under development in Canada. Over the next few years, improvements to the Province's performance reporting can be expected as the systems and procedures to support performance measurement are developed. As the systems and audit evidence improve, the nature of my auditing procedures will change to enable the provision of audit assurance. I support the initiative to provide performance information and I am encouraged by progress to date.

As requested by you, I have performed the following procedures in connection with the Province of Alberta's set of core measures included in ***Measuring Up — Second Annual Report on the performance of the Government*** of Alberta dated June 1996:

1. Information obtained from an independent source, such as Statistics Canada, was agreed with the information supplied by the stated source. Information provided internally was agreed to the reports from the systems used to development the information.

2. The calculations which converted source information into reported measures were tested.

3. The appropriateness of the description of each measure's methodology was assessed.

As a result of applying the above procedures, I found no exceptions. However, these procedures do no constitute an audit of the set of core measures and therefore I express no opinion on the set of core measures included in ***Measuring Up — Second Annual Report on the performance of the Government of Alberta***.

As noted above, improvements will be made to the reporting of core measures over the next few years. One improvement recommended by my Office is the need to link performance information to costs and include such performance information in the financial statements. This form of reporting is particularly useful because it brings together both financial and non-financial performance information in one report. I will continue to work with management to improve accountability reporting in Alberta.

FCA
Auditor General

Edmonton, Alberta
June 11, 1996

People ... helping Albertans to be self reliant, capable and caring

This core business focuses on government's work in the areas of:

- fostering lifelong learning
- providing excellent schools, colleges, universities and technical institutes
- building a healthy society with accessible health care
- providing basic support and protection for those in need, and
- working with others to support families.

Five goals have been set for the people core business. This report provides the latest results on six core measures: educational attainment, literacy and numeracy, life expectancy at birth, health status, births to children and family income distribution.

Highlights of the 1995/96 results include:

- The percentage of students graduating from high school within six years of entering grade 9 has remained steady at about 69 percent.

- More students are achieving the acceptable standard in grade 9 math, up from 61 percent in 1992 to 66 percent in 1995, but we still have a way to go to achieve the target of 85 percent. In language arts, the results for 1995 are almost the same as last year — 82 percent achieved the acceptable standard. Again, this is short of the target of 85 percent.

- Latest results comparing Alberta students' achievement with students in other provinces show Alberta students at or above the Canadian average in all categories of the language arts and mathematics cross-Canada tests.

- The life expectancy of Albertans is among the highest in the world. Females can expect to live 81.1 years and males' life expectancy is 75.5.

- Only 9 percent of Albertans reported their health as fair or poor relative to others their own age in 1994 - the lowest rate among the provinces. There was a slight improvement this year in the number of people only reporting fair or poor health.

- Alberta continues to have more births to mothers under the age of 18 than the national average. The gap has closed slightly since 1992 but there was no drop in the rate this year.

- Since 1989, the percentage of families with income less than $20,000 has decreased from 14.9 percent to 10.5 percent in 1994.

What do these results tell us? They indicate no sharp changes in results in 1995/96. They show steady progress in some areas and other areas where more work is needed. In education, there is a ways to go to reach the targets of high school completion rates and standards in language arts and mathematics. Overall, Alberta students measure up very well in comparison with students in other provinces. We've seen a significant decline in the number of families with low incomes. On the other hand, the continuing high rates of births to young women under 18 is a cause for concern.

Looking ahead, some critical challenges lie ahead:

- Albertans place a high value on quality health care. They want an efficient and restructured system, but they want to be assured that they'll have access to health care when they need it. Given the amount of change in the health care system, it is important to monitor accessibility and other measures of a quality health system.

- For Albertans to get jobs, market their skills, or develop new ideas and new products, they need to be well educated and highly skilled. That means our education system must provide young people with opportunities to learn, expand and update their skills.

- With major changes planned in the way services are provided for children in need, the changes need to be monitored and assessed to ensure that the goal of keeping children safe is achieved.

- While there has been a reduction in the number of families living on incomes of less than $20,000, families on low incomes continue to have a tough time supporting themselves and maintaining their independence.

- Continuing high rates of birth to young women is an ongoing concern both for the young mothers and for their babies. In spite of programs and efforts in place, Alberta continues to have a higher rate of births to children than the national average.

People

helping Albertans to be self reliant, capable and caring.

Government Goals

- To ensure that Alberta students get the best possible education, so that students learn the knowledge, skills, and positive attitudes they need to be self-reliant, responsible, caring, and contributing members of society.
- To ensure that adults have access to high quality, affordable post-secondary education and training so they can take responsibility for shaping their futures, participate in a changing economy and workforce, create new knowledge and enrich the quality of life in their communities.
- To encourage and support Albertans to become self-reliant and productive.
- To protect, maintain, restore and enhance the health of Albertans.
- To help families to be responsible and accountable, adults independent, and to keep children safe.

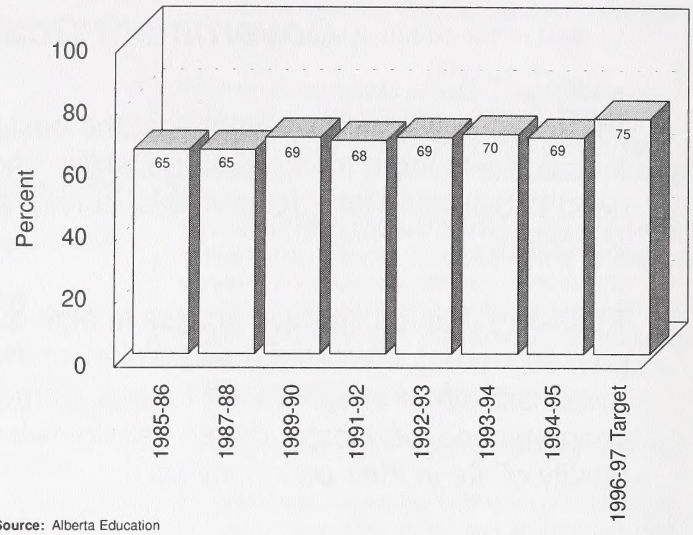
Core Performance Measures

- ✓ Educational Attainment
- ✓ Literacy and Numeracy
- ✓ Life Expectancy at Birth
- ✓ Health Status
- ✓ Births to Children
- ✓ Family Income Distribution

Educational Attainment

Part of helping people to be self-reliant, responsible and contributing members of society is to ensure that they receive the appropriate education and training. As one measure, the government will track the percentage of Alberta students that complete high school. We have used this measure as a leading indicator for the progress of the elementary and secondary education system. Additional measures for the education system can be found in the annual reports of the Ministry of Education and the Ministry of Advanced Education and Career Development.

Percentage of Students Completing Within Six Years of Entering Grade 9



Source: Alberta Education

Results

The percentage of students completing within six years has remained steady at about 69% over the past five years.

Goal

To ensure that Alberta students get the best possible education and have the opportunity to acquire the knowledge, skills and attitudes they need to be self-reliant, responsible, caring and contributing members of society.

Measure

Measures the percentage of students who receive a high school diploma or certificate within six years of entering grade 9. It also includes students accepted into a post-secondary institution directly from high school without receiving a diploma.

Target

To increase the percentage of students graduating in six years to 75% by 1996-97.

Educational Attainment

Methodology

Students enrolling in Grade 9 are tracked over time to determine the proportion who complete a diploma, certificate or equivalent standing within six years.

Strategies

- **Education** will provide information to parents on what students are expected to learn.
- **Education** is working on a policy framework to enhance quality teaching by updating teacher preparation, certification and evaluation requirements.
- **Education** will complete curriculum in Career and Technology Studies by 1996-97, involving business in the development and delivery of some skills programs.
- **Education** is working with other ministries to meet the health and related support needs of students.
- **Advanced Education and Career Development** will further develop alternative routes to employability to assist Albertans not pursuing a post-secondary education.
- **Advanced Education and Career Development** will create new paths for completing degrees to provide Albertans with learning opportunities that build upon their completion of diploma and university transfer programs.
- **Advanced Education and Career Development** will improve the transfer of courses and recognition of prior learning to assist the progress of students in the adult learning system.
- Several ministries, led by **Family and Social Services**, are designing and developing a community-based system for services to children and families.

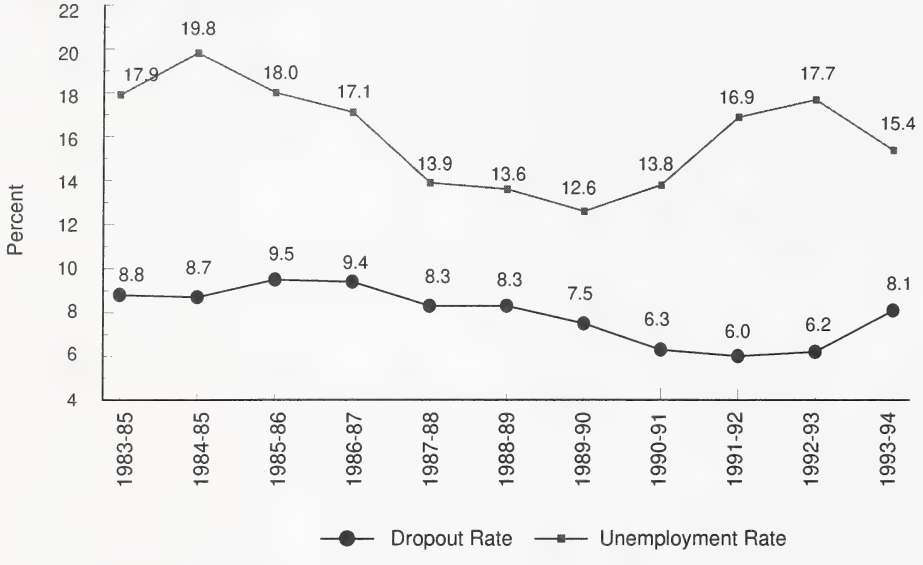
For additional measures, see the following ministries in Appendix 1:

Education
Advanced Education and Career Development
Family and Social Services

Educational Attainment - Supplemental Data

The school dropout rate is generally inversely correlated with the youth unemployment rate. That is, as the employment situation for young adults improves, there tends to be an increase in the school dropout rate as students opt to join the labour force rather than completing school, although other factors may have an influence. Alberta's annual dropout rate is the proportion of students age 14 to 18 who leave without completing a high school program (based on a school year). The unemployment rate is for youth age 15-19, and is calculated on a calendar year basis.

Annual Alberta School Dropout Rate vs Youth Unemployment

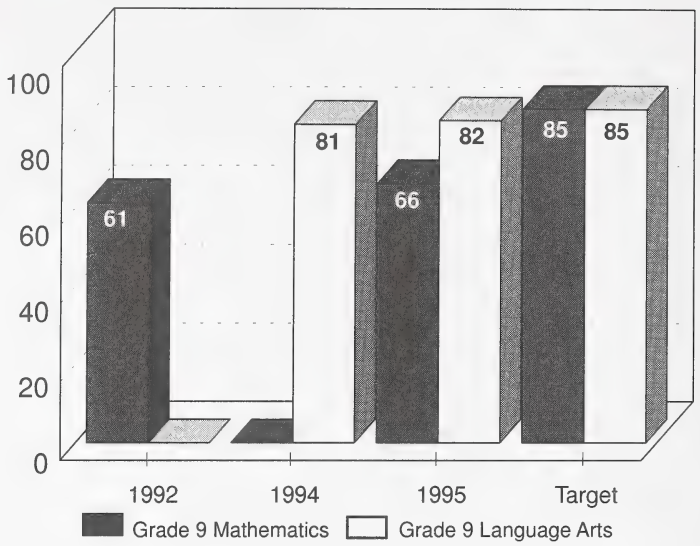


Sources: Dropout Rate - Alberta Education
Unemployment Rate - Statistics Canada

Literacy and Numeracy Levels

Part of helping Albertans take responsibility for their futures is ensuring that they have the knowledge and skills necessary to participate in a changing economy and workforce. An essential component of this is having the necessary literacy and numeracy skills to function in society. We have chosen to use the percentage of Grade 9 students achieving acceptable standards on provincial achievement tests in mathematics and language arts (the standards are described on the facing page), as Statistics Canada only has periodic data on adult literacy and numeracy. We realize that this is not a direct measure of adult literacy or numeracy; however, it is a reasonable indicator of our elementary and secondary education system's ability to prepare students who are literate and numerate.

Percentage of Grade 9 Students Demonstrating Acceptable Standards



Note: Results will be available annually beginning in 1995.

Source: Alberta Education

Results

The percentage of Alberta students achieving the acceptable standard in mathematics increased from 61% in 1992 to 66% in 1995, but we are still short of our target. There was basically no change in language arts results between 1994 and 1995, and therefore still need some improvement to reach our target of 85%.

Goal

Our goal is to encourage and support Albertans to become self-reliant and productive.

Measure

Percentage of Grade 9 students achieving the acceptable standard on provincial mathematics and language arts achievement tests.

Target

To have 85% of all Grade 9 students achieve the acceptable standard on provincial achievement tests in mathematics and language arts.

For additional measures, see the following ministries in Appendix 1:

Advanced Education and Career Development
Community Development
Education
Family and Social Services

Literacy and Numeracy Levels

Methodology

Students normally take the grade 9 provincial achievement tests at age 14 or 15. Provincial achievement tests are developed with extensive involvement from classroom teachers, and input from other educators, business and community groups, to ensure that the standards reflect public expectations.

Strategies

- **Advanced Education and Career Development** provides alternatives for Albertans who would otherwise receive income support to increase their employability and self-reliance.
- **Community Development** is developing an electronic Alberta library network and supports libraries through Lottery Fund grants.
- **Education** has expanded provincial achievement testing and will work with other provinces to establish common standards in core subjects.
- **Education** has enhanced parental and community involvement in schools through school councils and school-based management.
- **Family and Social Services** provides financial assistance to welfare clients in educational upgrading programs.

Standards

Grade 9 Language Arts Selected Standards

- use experiences, knowledge of language and context clues to make meaning from text.
- identify, evaluate and synthesize information from a variety of sources to make informed choices, form opinions and answer questions.
- describe, interpret and comment on the actions, attitudes and motives of main characters.
- explain how elements like plot, setting and characterizations are interrelated. Identify the techniques used by authors to achieve a desired purpose.
- communicate information and ideas in a variety of contexts and for a variety of purposes and audiences.

Grade 9 Mathematics Selected Standards

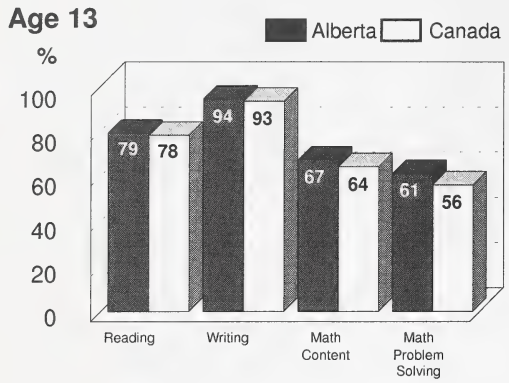
- use the rational number system (numbers that can be written as fractions) to solve problems.
- perform calculations involving rational numbers in both their fractional and decimal forms, using estimators, calculators and computers where appropriate.
- describe, illustrate, interpret and analyze data, using examples from other school subjects and everyday life.
- use measurements and geometry reasoning to solve problems in a variety of contexts.
- use algebra and variables to solve problems.

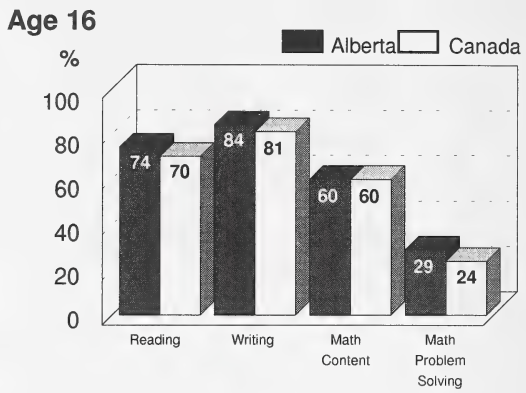
Literacy and Numeracy Levels - Supplemental Data

The School Achievement Indicators Program (SAIP)

The School Achievement Indicators Program tests a representative sample of 13 and 16 year old students in each province in language arts and mathematics every four years. SAIP results show literacy levels of students both slightly younger and slightly older than the grade 9 provincial achievement tests. SAIP tests are designed to measure expectations common to all provinces. The SAIP assessments are developed with extensive involvement of classroom teachers and ministry personnel across the country. The test results review process also allows for input from other educators, as well as representatives of business and other community groups.

Percentage of Students Meeting or Exceeding Standards





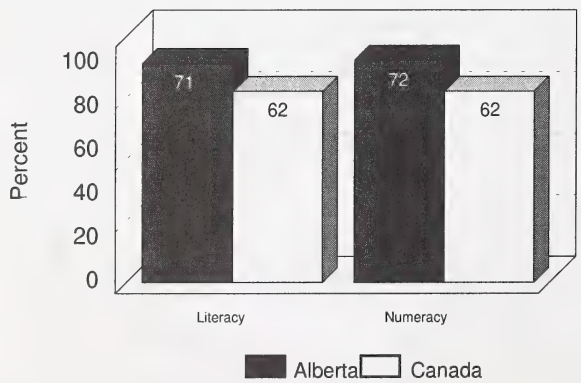
Notes: These graphs present results from the School Achievement Indicators Program which measures the performance of students age 13 and 16 in the four categories. There are five levels of achievement. The standard for age 13 is Level 2, and for age 16 is Level 3.
Canadian results for reading and writing are based on students who wrote the test in English.

Source: Council of Ministers of Education, Canada 1993, 1994

Statistics Canada's Adult Literacy Survey

Shows the percentage of persons aged 16 to 69 with reading and numeracy skills sufficient to meet most everyday demands. The survey consisted of a series of face-to-face interviews with a representative sample of approximately 9,500 persons. The main test involved a series of tasks designed to assess an individual's ability to use the printed material commonly encountered at work, at home and in the community. National and provincial data from the 1994 International Adult Literacy Survey, in which Canada participated, will be released in 1996. There are no plans for conducting literacy surveys on a regular basis.

Adult Literacy and Numeracy (1989)



Source: Statistics Canada- Survey of Literacy Skills Used in Daily Activities, October 1989

Life Expectancy at Birth

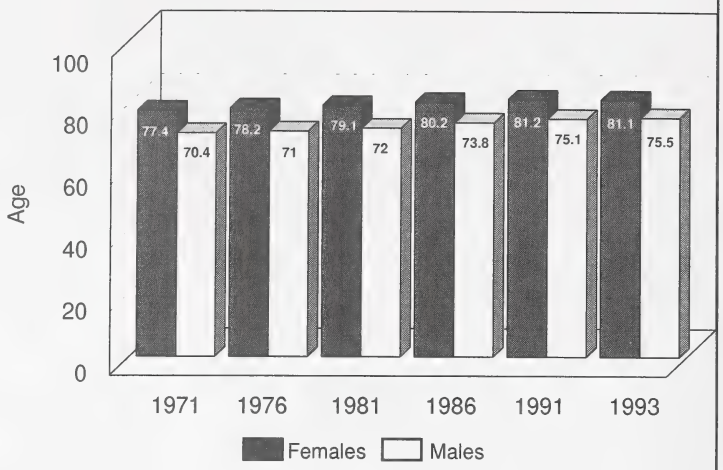
Life expectancy at birth is a universally recognized indicator that a population is healthy, has adequate access to health care, has healthy diets, and is protected from the effects of environmental, workplace or other hazards that would shorten their lives.

Comparisons between countries have shown that life expectancy is related to national wealth and economic development, the quality of the health care system, and individual socio-economic status.

We want to increase the number of years lived in good health. In Alberta, overall life expectancy is strongly affected by infant mortality and the three major causes of premature death (cancer, heart disease and injury). Reducing mortality rates from these factors will increase overall life expectancy for Albertans.

It should be noted that aboriginal Canadians have a much lower life expectancy than the national average.

Life Expectancy at Birth in Alberta



Source: Statistics Canada Cat. No. 82-001 and 82-003 (1993 only)

Results

The life expectancy of Albertans at birth is among the highest in the world. The life expectancy of Albertans has increased steadily for both men and women, by about one year every five years since 1971.

Goal

Our goal is to protect, maintain, restore and enhance the health of Albertans.

Measure

Life expectancy is an estimate of the average number of years that a person born in that year will live, based upon current mortality statistics.

Target

Our target is to approach the life expectancy of the world's leading countries. In 1993, Japan had the longest life expectancy of any nation at 76.5 years for males and 83.1 years for females.

Life Expectancy at Birth

Methodology

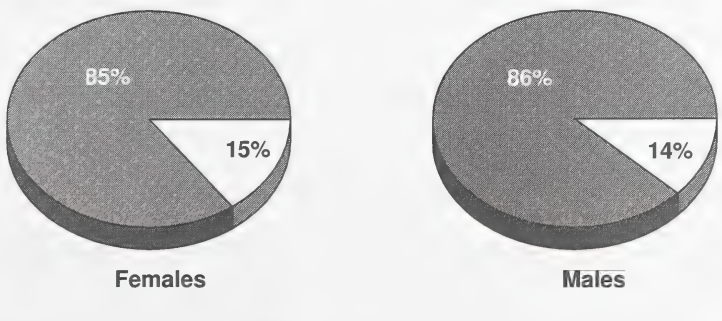
Life expectancy estimates are calculated and published by Statistics Canada.

Strategies

- **Health** will monitor and assess population health, ensure appropriate services are accessible on a timely basis through regional and provincial health authorities, and expand public knowledge about factors influencing health.
- The **Alberta Alcohol and Drug Abuse Commission** will help individuals live free from alcohol and drug abuse.
- **Community Development** will investigate the relationship between active living and decreased health costs.
- **Family and Social Services** will strive to keep children safe through prevention and early intervention, promote community-based services to persons with disabilities, and provide financial assistance to those in need owing to age, long-term disability or illness.
- **Labour** will continue to promote appropriate workplace safety standards and provide adjudication of workplace safety issues.
- The **Alberta Heritage Foundation for Medical Research** will support research to discover advances in medical science that can enhance the health of Albertans, and will support research on health service effectiveness and health technology assessment.

New measures are being developed to track improved quality of life as well as longer life. Life expectancy in good health presents a slightly different picture of health by subtracting from total life expectancy, for those born in 1991, the estimated number of years lived in health institutions and the estimated number of years lived in poor health (i.e., chronic disease or long-term disabilities and dissatisfaction with own health). These estimates are derived from administrative sources and public survey data collected by Statistics Canada.

Expected Percentage of Years Lived in Good vs. Poor Health (Alberta, 1991)



Source: Alberta Health

For additional measures, see the following ministries in Appendix 1:

Health
Community Development
Family and Social Services
Labour

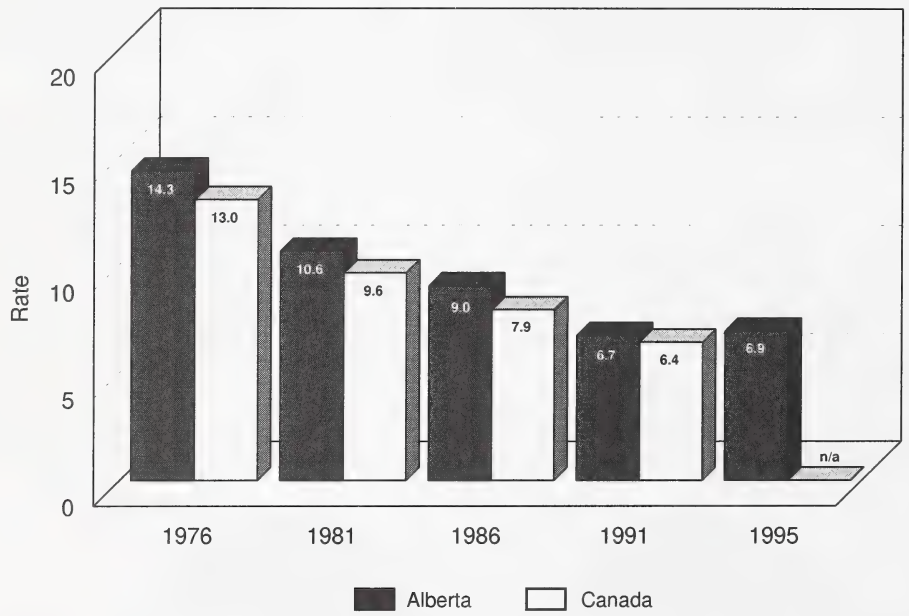
Life Expectancy at Birth - Supplemental Data

Overall life expectancy is strongly affected by infant deaths and the three major causes of death in Alberta (cancer, heart disease and injury). Reducing mortality rates from these factors will increase overall life expectancy for Albertans.

Compared with Canada as a whole, Alberta in 1991 had a much higher injury mortality rate and a slightly higher infant mortality rate, but lower mortality rates for cancer and heart disease. Trends since 1976 indicate that infant mortality rates have decreased substantially, as have mortality rates for heart disease and injury, while the cancer mortality rate has slowly increased. Infant mortality rates have not changed since 1991; however, preliminary estimates for 1995 suggest a slight increase in the infant mortality rate.

The Standardized Mortality Rate data are drawn from Statistics Canada Cat. 82-003 and are based upon the 1971 population distribution by age and sex.

Infant Mortality (Per 1,000 Live Births)

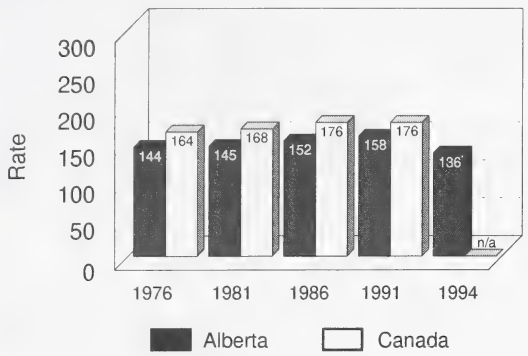


Note: 1995 data based on preliminary estimates by Alberta Health.

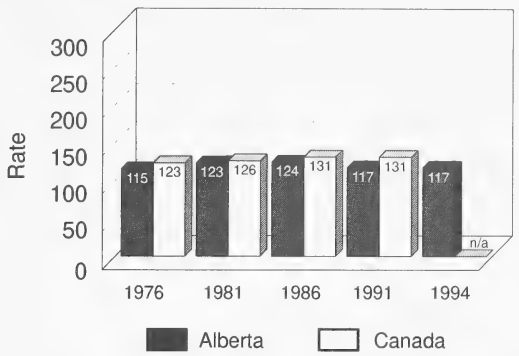
Life Expectancy at Birth - Supplemental Data

Standardized Mortality Rates per 100,000 population for major causes of death

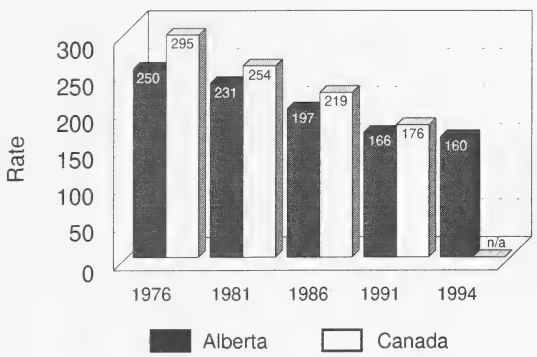
All Cancer - Males



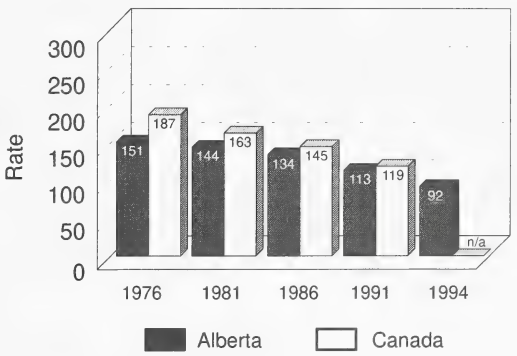
All Cancer - Females



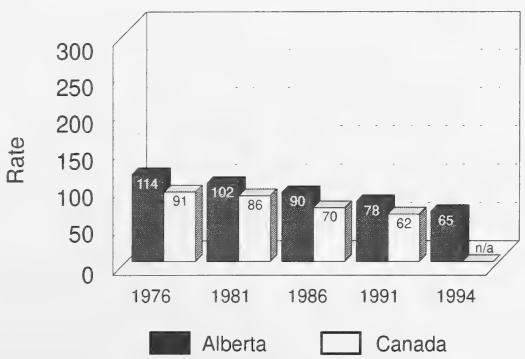
Heart Disease - Males



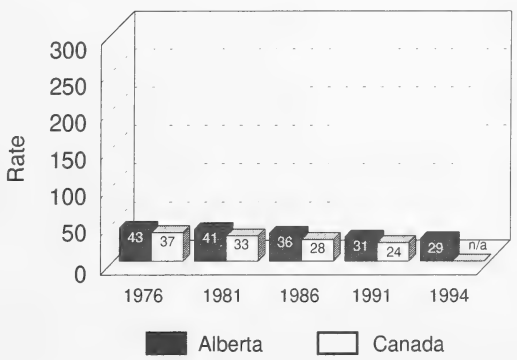
Heart Disease - Females



All Injury - Males



All Injury - Females



Health Status

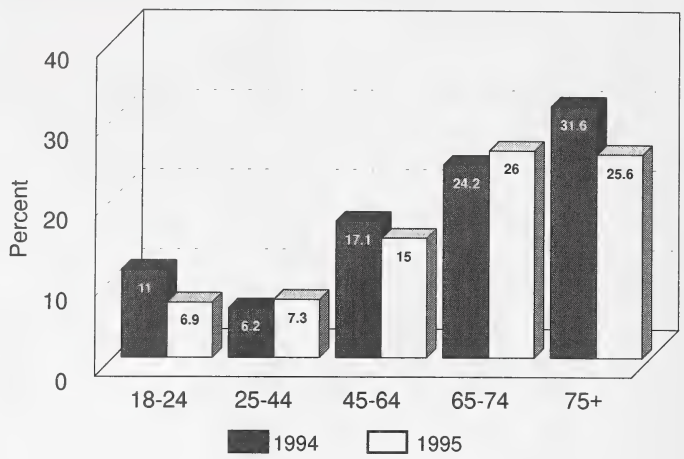
Self-reported health status is a good indicator of the health and well being of Albertans. How people rate their own health is affected by a variety of factors including chronic disease, disability, temporary illness and mental health. This measure attempts to ascertain whether Albertans in general, not just those that use the health care system, feel healthy, compared to others their own age. It is becoming accepted within Canada as a means of communicating population health.

Results

Self-reported health status is strongly affected by age; older Albertans are more likely to report poorer health than younger Albertans. There was a slight increase in negative responses from Albertans aged 65 to 74 (see top graph), and a decrease among those aged 75 and older.

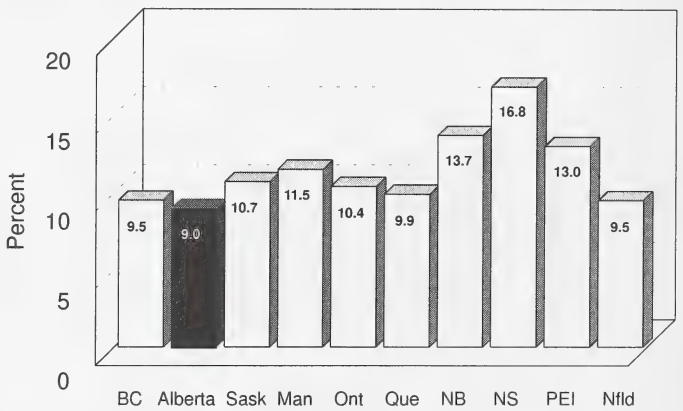
In comparison to other provinces, Alberta had the lowest percentage reporting fair or poor health compared to others their age in 1994.

Percentage of Albertans Rating Their Health as Only Fair or Poor Compared to Others Their Age



Source: Alberta Health Survey

Fair or Poor Health Status by Province (1994)



Source: Statistics Canada, National Population Health Survey, 1994

Goal

Our goal is to protect, maintain, restore and enhance the health of Albertans.

Measure

Albertans are asked to rate their health compared to others their own age using the following categories: excellent, very good, good, fair or poor. Our measure of health status is the percentage reporting either fair or poor health, in each of five age groups.

Target

Our target is to reduce the percentage of Albertans, particularly in the older age categories, who rate their health status as only fair or poor. We want to have the lowest percentage of Albertans reporting fair or poor health status, compared to other provinces.

Health Status

Methodology

Annual data for Alberta are collected through a public telephone survey of 4,000 Alberta households selected at random. A standard question is used to measure self-reported health status (*i.e., In general, compared with other people your age, would you say your health is ...?*). The survey is commissioned each year by Alberta Health, and an independent private contractor is engaged to conduct the survey and report on the results.

Data for interprovincial comparisons are obtained from the National Population Health Survey, which is conducted by Statistics Canada every two years.

Strategies

- **Health** will monitor and assess population health status, ensure appropriate health services are accessible on a timely basis through regional and provincial health authorities, and expand public knowledge about factors influencing health.

- **Community Development** will promote active healthy living, investigate strategies for combating elder abuse and neglect, and ensure that low income seniors have sufficient income to live in a secure and dignified way. The Ministry will also coordinate the development of standards for residential care options to ensure vulnerable seniors are protected.

- **Education** will continue to include health and physical education programs as part of compulsory education.

- **Environmental Protection** will strive to ensure the quality of air, water and land resources in order to sustain a healthy environment.

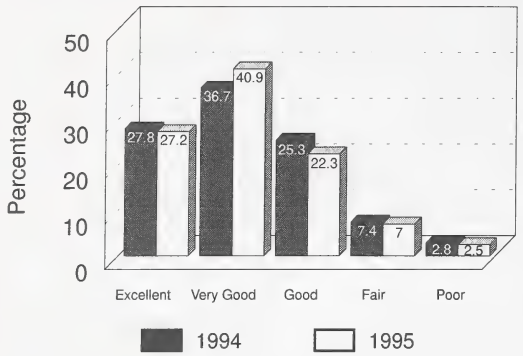
- **Family and Social Services** will strive to keep children safe through prevention and early intervention, provide financial assistance to those in need owing to age, long-term disability or illness, and support women and children leaving abusive situations.

For additional measures, see the following ministries in Appendix 1:

Health
Community Development
Education
Environmental Protection
Family and Social Services

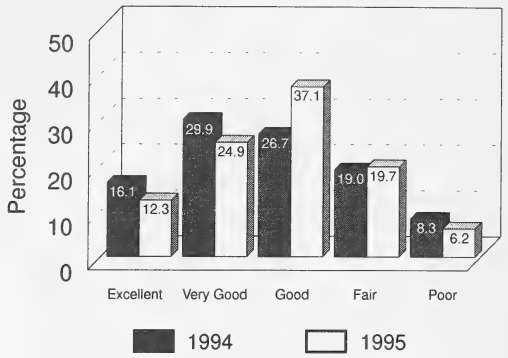
Health Status - Supplemental Data

Albertans' Aged 18 to 64 Rating of Their Health Relative to Others Their Age



Source: Alberta Health Survey, 1995 and 1996

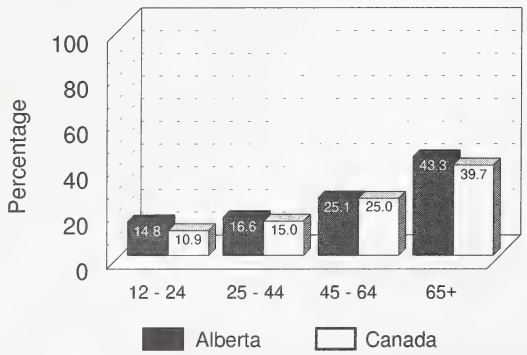
Albertans' Aged 65+ Rating of Their Health Relative to Others Their Age



Source: Alberta Health Survey, 1995 and 1996

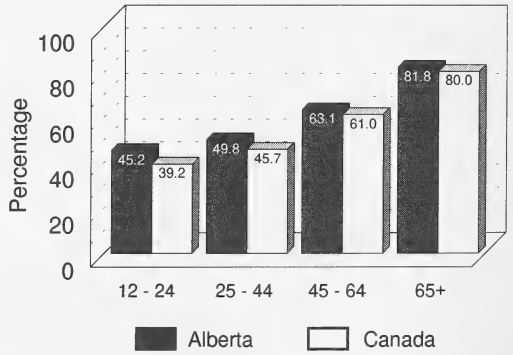
Several related factors may contribute to how people report on their state of health including: long-term disability, a chronic disease or condition, (e.g. diabetes, asthma, heart conditions, high blood pressure, arthritis, stomach ulcers) and a recent illness or disability. These limitations may affect self-reported health status as they may make life more difficult and may reduce a person's overall quality of life.

Percentage Reporting Restriction of Activity (1994)



Source: Statistics Canada, National Population Health Survey, 1994

Percentage Reporting One or More Diagnosed Long-Term Conditions (1994)



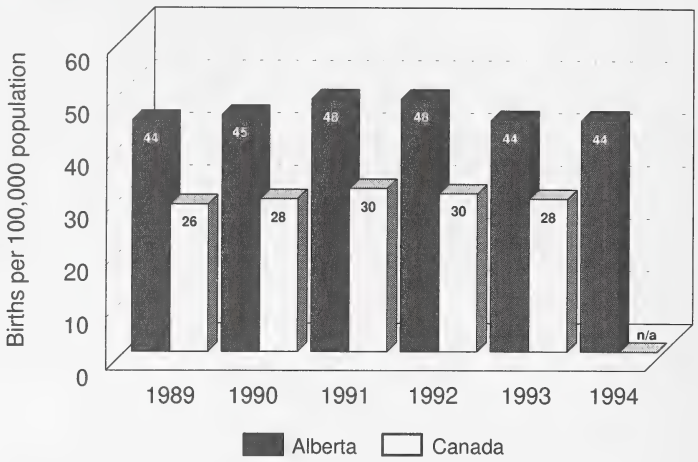
Source: Statistics Canada, National Population Health Survey, 1994

Births to Children

Children born to mothers under the age of 18 face the risk of a poor start to life. In addition to a higher incidence of low birthweight babies, mothers who are children are at risk of dropping out of high school and becoming welfare dependent.

Young mothers are generally single when they give birth, and are more likely to form single parent households. Children born into single parent families are much more likely to experience poverty than children in two-parent families.

Births to Mothers under the Age of 18 (per 100,000 Population)



Source: Vital Statistics and Statistics Canada

Results

In 1992, the rate of births to children was 60% higher than the national average. The gap between Alberta's rate and the national average declined by 2 births per 100,000 population in 1993. (The total number of births for each year is included in the supplemental information section.)

Goal

To help families to be responsible and accountable, adults independent and to keep children safe.

Measure

Measures births to mothers under the age of 18 per 100,000 population in Alberta over time and compares it to the national average. Supplemental information is provided on the breakdown by age group for these births as well as the total number.

Target

To reduce the rate of births to mothers under the age of 18 to a level below or equal to the national average by the year 2005.

Births to Children

Methodology

Uses Vital Statistics Data and Statistics Canada Data.

Strategies

- Several ministries, led by **Family and Social Services**, are designing and implementing a community-based system for services to children and families. The system will focus on prevention and early intervention.
- **Education** will continue to provide the opportunity for students to participate in human sexuality programs.
- **Health** will monitor and assess population health status and will expand public knowledge about factors influencing health.

For additional measures, see the following ministries in Appendix 1:

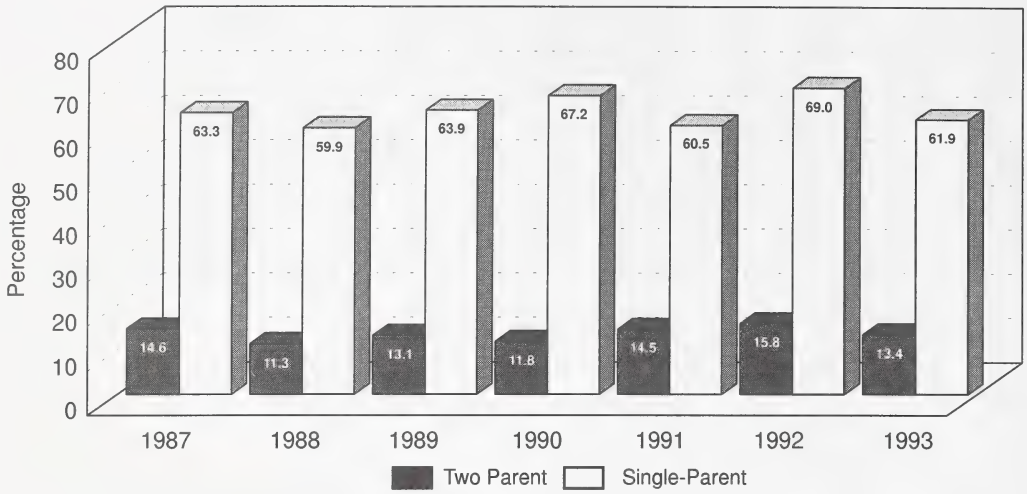
Family and Social Services
Education
Health

Births to Children - Supplemental Data

Children born to mothers under the age of 18 are more likely to live in a single parent family situation. The intent of this information is to show how the likelihood of children living in low income families increases in a single parent situation, and the resulting economic disadvantage experienced by those children.

Alberta Children under 18 Living in Low-income Families

Two Parent vs. Single-Parent (Female Head)

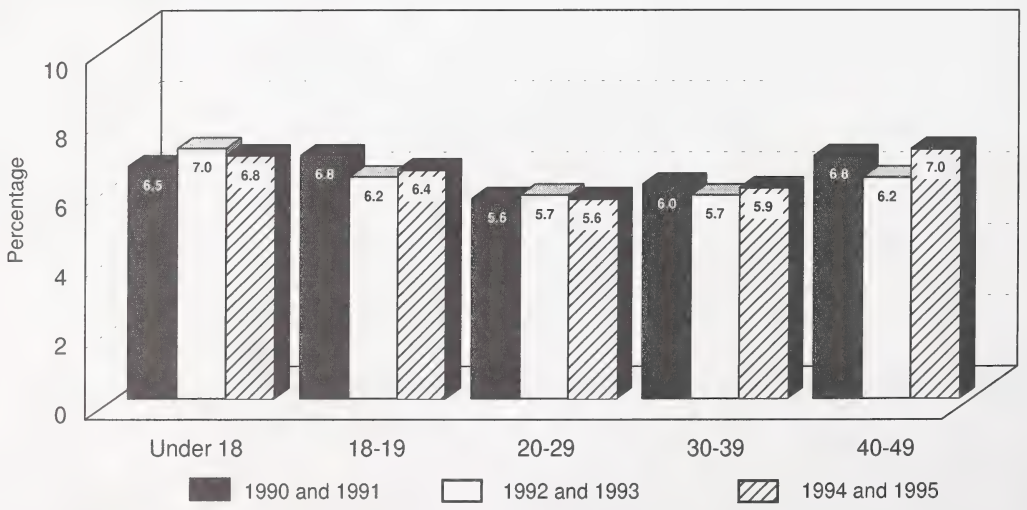


Note: Low income is defined as Statistics Canada low income cut-offs (e.g. 1994 cut-offs for families living in cities of 500,000+ population are $20,981 for a family of two, and $30,708 for a family of four).

Source: Statistics Canada, Cat No. 13-569, Table 5

One of the health problems associated with births to mothers under the age of 18 is the higher incidence of low birthweight babies (under 2,500 grams), compared to mothers over the age of 18 (except mothers aged 40-49 who also constitute a high risk group). The graph below compares the rate of low birth weight babies for Alberta mothers, by the age of the mother.

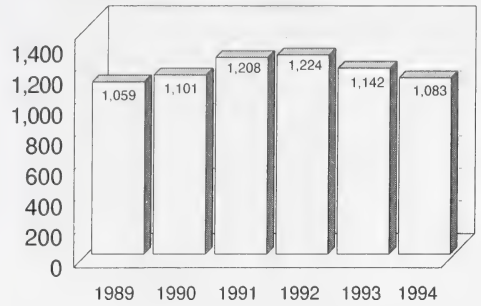
Low Birthweight Babies By Age of Mother



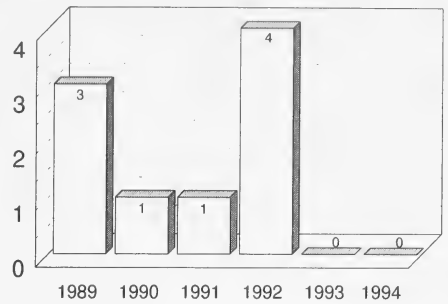
Source: Vital Statistics

Births to Children - Supplemental Data

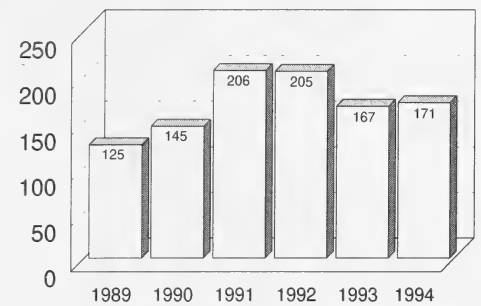
Total Number of Births to Mothers under Age 18



Total Number of Births to Mothers Age 10 to 12

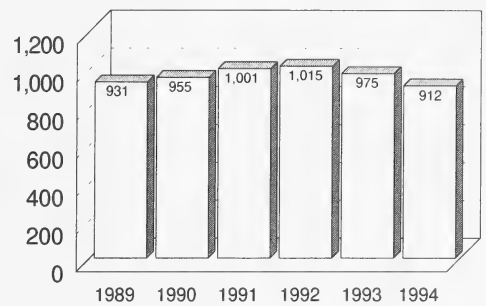


Total Number of Births to Mothers Age 13 to 15



The age category 13 to 15 is the only category that has not shown a consistent decline since 1992.

Total Number of Births to Mothers Age 16 and 17



Source: Vital Statistics

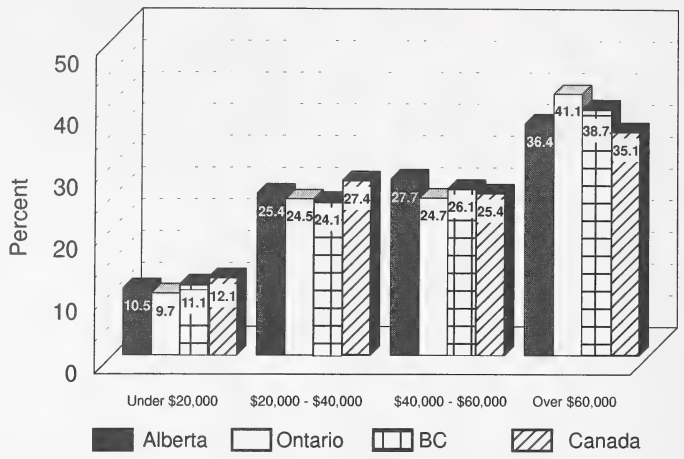
Family Income Distribution

The average income of families and the distribution of income amongst various income groups is an important indicator of the overall well-being of Albertans. Income distribution also provides an indication of the standard of living and economic conditions faced by Albertans. This measure provides information as to the range of family incomes and the incidence of low income families .

Results

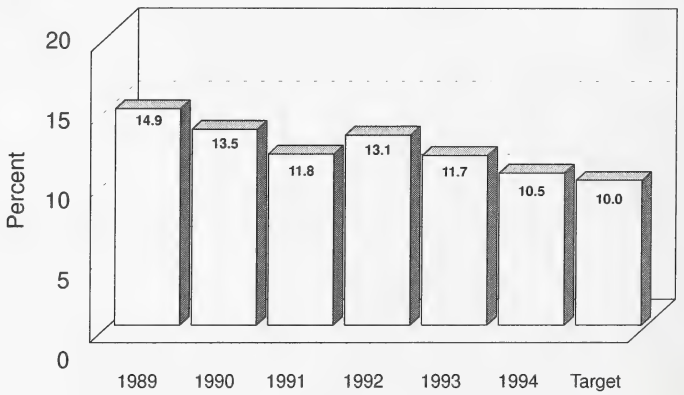
The percentage of families with income less than $20,000 decreased from 11.7% in 1993, to 10.5% in 1994.

Family Income Distribution by Province (1994)



Source: Statistics Canada, Cat. No. 13-207

Percentage of Alberta Families with Income Under $20,000



Source: Statistics Canada Cat. No. 13-207, Table 2

Goal

Our goal is to encourage and support Albertans to become self-reliant and productive, and to help families to be responsible and accountable, adults independent, and to keep children safe.

Measure

Compares the income distribution of families for selected provinces and the national average.

Target

To reduce the percentage of households with average family income under $20,000 to 10 percent by the year 2000.

Family Income Distribution

Methodology

Statistics Canada obtains information about household income levels through an income distribution questionnaire mailed to sample households. Income groups are clustered as follows: under $20,000; $20,000-$40,000; $40,000 - $60,000; and over $60,000. Family types are categorized by Statistics Canada, Household Surveys Division.

Strategies

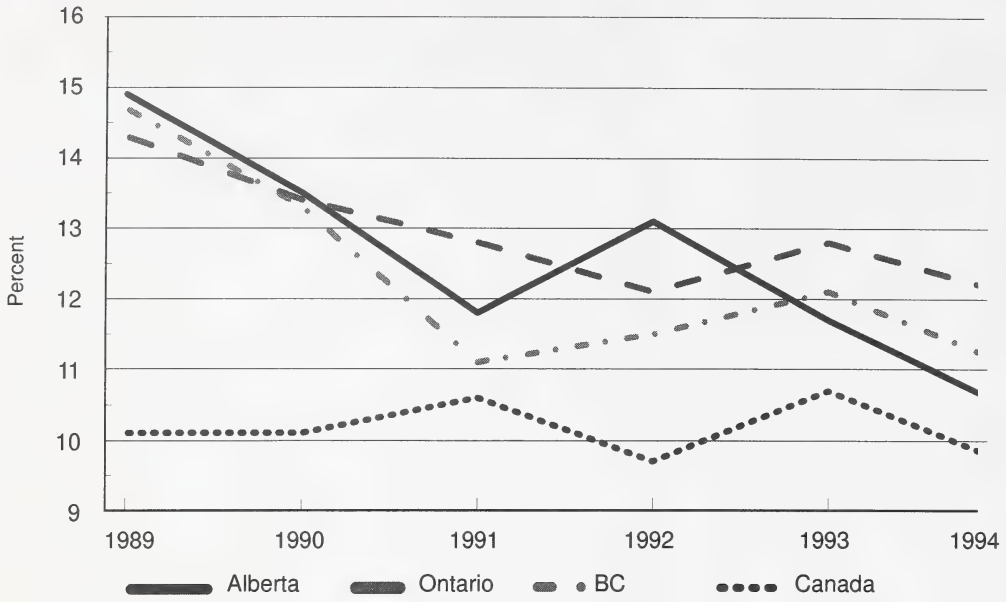
- **Treasury** will review Alberta's personal income tax system and policies with a view to developing a system that promotes self-reliance, wealth creation and fair taxation of Alberta families. **Treasury** will also evaluate Alberta's corporate tax system as it relates to competitiveness with other jurisdictions in Canada.
- **Advanced Education and Career Development** provides educational and training alternatives to increase employability and self-reliance for Albertans who would otherwise receive income support.
- **Community Development** will continue to provide financial support to eligible seniors and lump-sum benefits to those seniors who can show serious financial difficulty because of changes to seniors programs.
- **Economic Development and Tourism** will work to strengthen growth and expansion opportunities in Alberta's key industries and to attract investment and new business to Alberta.
- **Family and Social Services** is transforming welfare from a passive assistance program to an active employment program.
- **Municipal Affairs** will investigate and implement initiatives to develop tenant self-reliance and encourage transitional use of subsidized accommodation. The ministry will also ensure that social housing is occupied by Albertans in greatest need.

For additional measures, see the following ministries in Appendix 1:

Treasury
Advanced Education and Career Development
Community Development
Economic Development and Tourism
Family and Social Services
Municipal Affairs

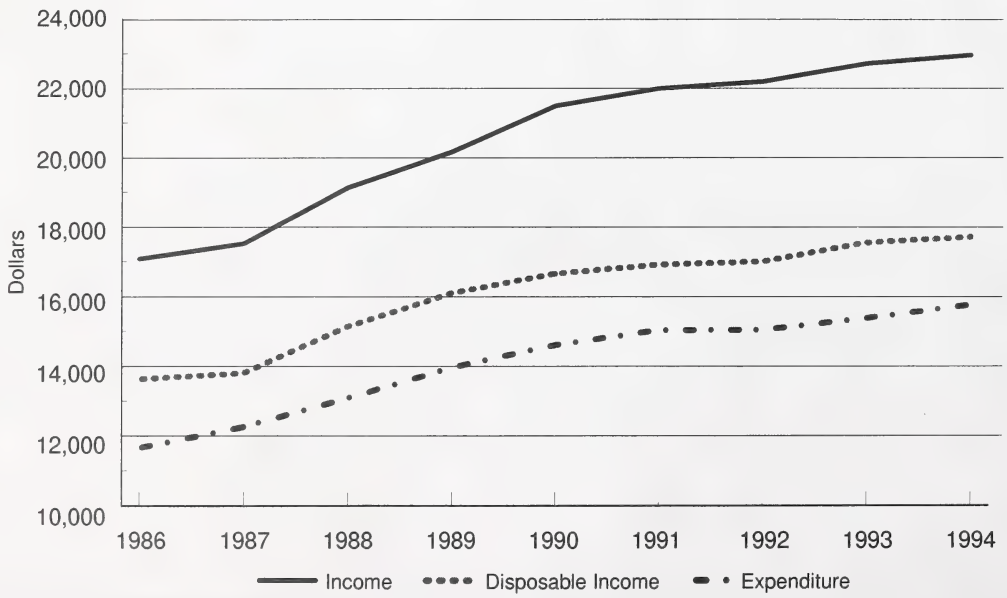
Family Income Distribution - Supplemental Data

Families With Income Under $20,000



Source: Statistics Canada, Cat No. 13-207, Table 2

Albertans' Per Capita Personal Income, Disposable Income and Personal Consumer Expenditure on Goods and Services

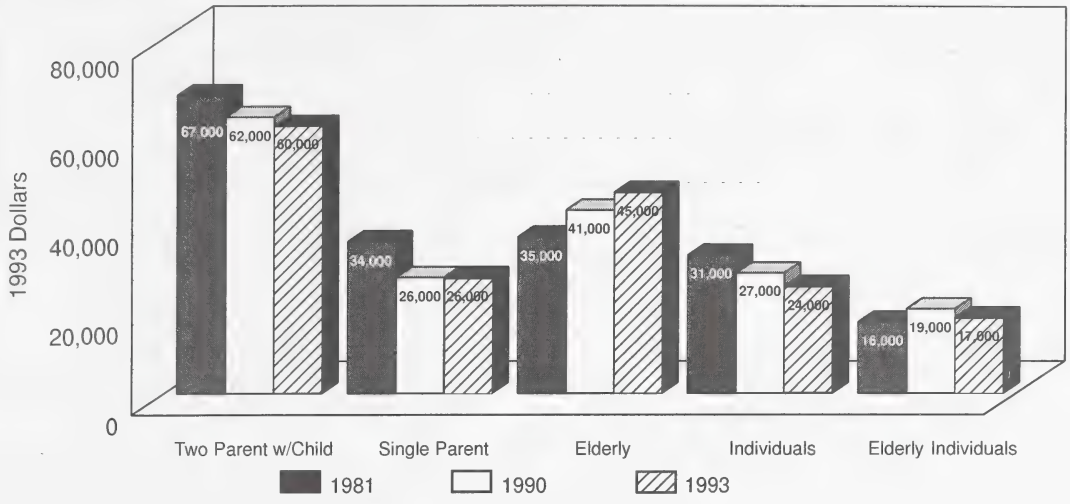


Source: Statistics Canada and Alberta Treasury

Family Income Distribution - Supplemental Data

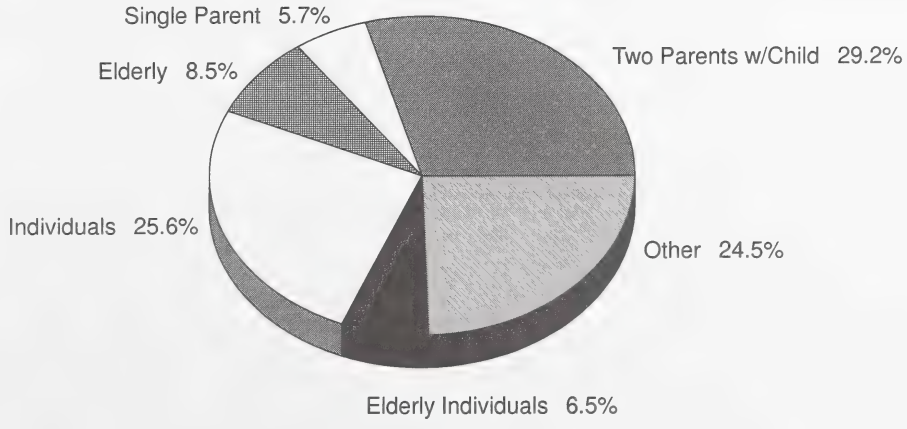
The following charts show the change in average income for selected family types between 1981 and 1993 in constant (1993) dollars and the breakdown by family type in Alberta in 1993. Two-parent families are those with children under the age of 18, and elderly families are those where the head of the family is over 65.

Annual Average Alberta Family Income by Family Type



Source: Statistics Canada, Household Surveys Division, 1994 and Alberta Treasury

Percentage of Alberta Family Types in 1993



Note: Other includes married couples, two-parent families with children over 18, and other types of families.

Source: Statistics Canada, Household Surveys Division, 1994 and Alberta Treasury

Prosperity ... promoting prosperity for Albertans

A key role for government is to work with business, industry and Albertans to build a strong and prosperous province. Government does this by:

- creating a dynamic environment for growth in business, industry and jobs
- ensuring that Alberta has a highly skilled and productive workforce
- providing effective government that lives within its means
- building an efficient system of roads, highways, utilities and public spaces, and
- promoting new ideas, innovation and research.

Eleven core measures are used to measure government's progress in meeting its goals in the prosperity core business.

Highlights of the 1995/96 results include:

- Albertans continue to enjoy the lowest personal tax rates in Canada. Alberta's tax burden on families is typically the lowest in Canada, about 35 percent below the Canadian average.

- Government has balanced the budget and started to pay down the debt. Thanks to combined spending cuts and higher than expected resource revenues and corporate taxes, the net debt has been reduced from $8.71 billion to $6.22 billion in two years. With two years of early payments on the debt, Alberta's net debt could be eliminated in 17 years instead of 25 years as originally planned.

- Alberta's economy is growing. Between 1994 and 1995, the economy grew by 2.7 percent in terms of Gross Domestic Product.

- Alberta maintained a strong credit rating as a result of its financial performance.

- Between December 1992 and December 1995, Alberta's net employment (new jobs less jobs lost) grew by 103,000 jobs. Eighty-one percent of people employed are in full-time jobs. Biggest job growth rates are in the business services, accommodations, food and beverage, and transportation and storage sectors. Employment declined in public administration, construction, communications and utilities sectors.

- Alberta's labour force was the most productive in Canada in 1995.

- The amount of time lost to both labour disputes and workplace injuries declined in 1995. Alberta continues to have a substantially lower number of days lost to labour disputes than the rest of Canada.
- Alberta's natural resources are the foundation of the provincial economy. Between 1993 and 1994 the economic output of the oil and gas, forestry and agricultural sectors grew by 8.4 percent to $13.9 billion.
- Exporting goods and services to markets outside of Alberta is critical to Alberta's economy and requires an efficient transportation network. The most recent statistics show that between 1993 and 1994, the volume of goods shipped by rail, pipeline and air cargo continued to increase.
- The ratio of private sector to provincial government spending on research and development increased to 2.7:1. However, the ratio is significantly below Quebec, Ontario and British Columbia.
- The per capita spending by government in 1995/96 was 5 percent below the average expenditures of eight other provinces. In 1995/96 the Alberta Government spent roughly $5,863 per Albertan, down from previous years.

While Alberta's economy is strong, there are a number of challenges to be addressed in the coming years:

- Other provinces and states compete for new business and investment by offering financial incentives. For Alberta to compete, we need to find alternative ways of attracting business and investment to our province.
- Technology is changing the marketplace and Alberta needs to keep pace.
- Export and trade patterns are changing with new markets emerging in different parts of the world. We need to expand the value added side of Alberta's economy.
- Continued growth of Alberta's small business sector is essential since it creates the majority of jobs in the province.
- Youth unemployment is a growing problem. Many young people can't find jobs that allow them to use their skills and education.
- Alberta's infrastructure of roads and highways needs to be maintained. This requires a continuing investment in upgrading roads, especially those which help Alberta's businesses get their products to markets in the United States.

At the time of this report, government is working on an updated economic development plan designed to address these and other important challenges in our economy.

Prosperity

promoting prosperity for Albertans.

Government Goals

- To build on the Alberta Advantage to create a climate conducive to investment, wealth generation, trade, and job creation.
- To ensure that Alberta has a well-educated, productive, and talented workforce, and a safe and attractive workplace.
- To develop the full potential of ideas and innovation to put Alberta at the forefront of research and development.
- To ensure safe, efficient, and affordable transportation systems, and essential utility services.
- To maintain a balanced, stable financial situation in the province, and to provide open, efficient and accountable government.
- To work with industry and business to maximize the value of Alberta's energy and mineral resource industries, the agriculture and food processing industry, and forestry and tourism.
- To work with the private sector and other partners to open up opportunities for trade in new international markets.

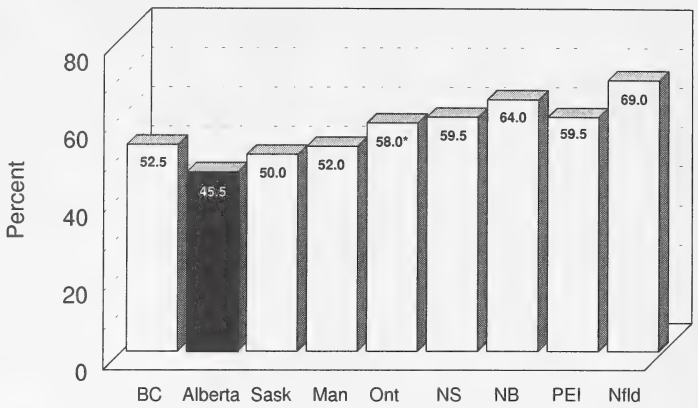
Core Performance Measures

- ✓ Taxation Load
- ✓ Net Debt
- ✓ Per Capita Gross Domestic Product
- ✓ Provincial Credit Rating
- ✓ Job Creation
- ✓ Skill Development
- ✓ Workplace Climate
- ✓ Resource Wealth
- ✓ Export Trade and Transportation to Markets
- ✓ Spending on Research and Development
- ✓ Cost of Government

Taxation Load

Albertans expect a fair, equitable, and simple taxation system. This measure tracks changes in the provincial tax burden on Albertans. The measure also shows Alberta's competitive tax position in relation to other provinces.

Provincial Personal Income Tax Rates
1995



These are basic provincial personal income tax rates expressed as a percentage of basic federal tax. Note: Quebec's tax rate is not comparable.

Source: Alberta Treasury and various Provincial Tax Acts.

* Ontario's personal income tax rate was reduced to 55.0% of basic federal tax for the 1996 taxation year.

Results

Alberta's rate of provincial personal income tax (as a percentage of the basic federal rate) for 1995 was the lowest in Canada at 45.5 percent.

Goal

Our goal is to create a climate conducive to investment, wealth generation and job creation, including a competitive and fair tax structure.

Measure

The Taxation Load measure compares provincial personal income tax rates. The measure will ensure that Alberta has a competitive tax structure.

Target

The target is to maintain the lowest personal income tax rate in Canada.

Taxation Load

Methodology

The provincial personal income tax rate is reported as a percentage of federal income tax and compared with other provinces.

Strategies

- **The Alberta Government** remains committed to the proposed tax plan in *Agenda '96*, with the top priority being debt repayment and dealing with spending issues.
- **Treasury** will be coordinating the tax plan proposed in *Agenda '96* and on which Albertans were recently consulted, with the goal of reducing the tax burden on all Albertans, starting with low to middle income working families, and improving the competitiveness of Alberta's businesses and industries.
- **Treasury** will participate in federal provincial negotiations and other meetings to inform the federal government about Alberta's economic priorties
- **Economic Development and Tourism** will, in conjunction with **Treasury**, monitor and continue to assess Alberta's competitive tax position.

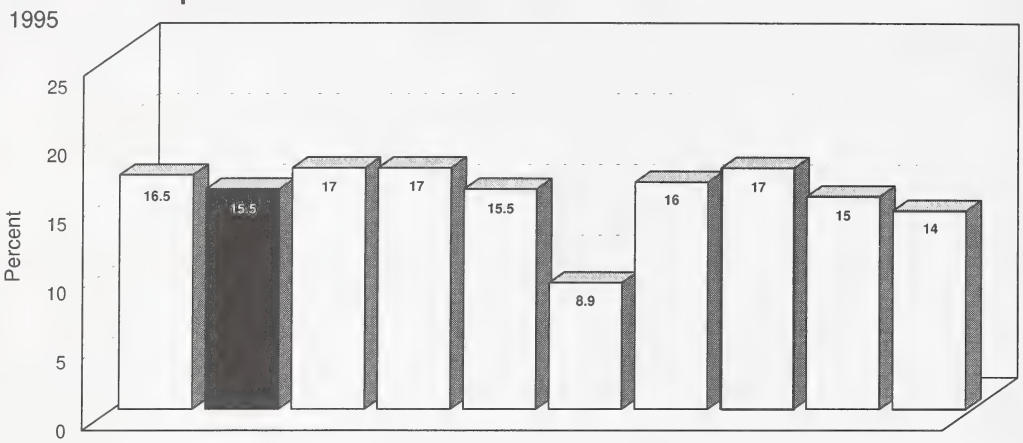
For additional measures, see the following ministries in Appendix 1:

Treasury
Economic Development and Tourism

Taxation Load - Supplemental Data

This page provides some additional information on the competitiveness of Alberta's tax system. The following chart compares the provincial corporate income tax rates across the country. Alberta is tied with Ontario as having the fourth lowest rate of corporate income tax after Quebec, Newfoundland, and PEI.

Provincial Corporate Income Tax Rates

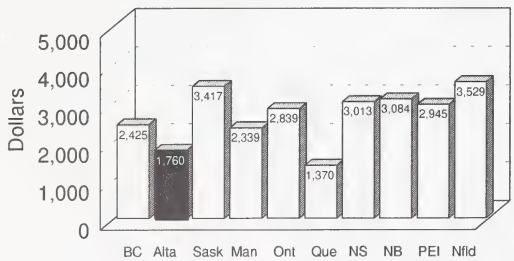


General corporate tax rates

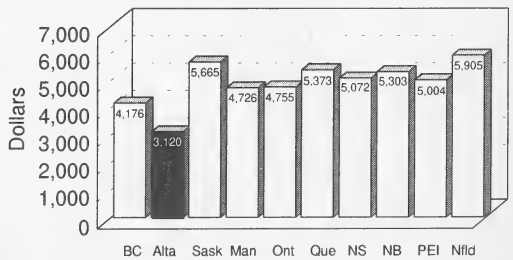
Source: Alberta Treasury

These charts compare the typical taxes payable, including provincial income, sales and fuel taxes (excluding federal taxes, health care premiums and other indirect taxes), by a family of one-income earner and two children (8 and 10 years of age) earning $30,000, $55,000, and $100,000. Alberta's tax burden on families is typically the lowest in Canada, roughly 35% below the Canadian average.

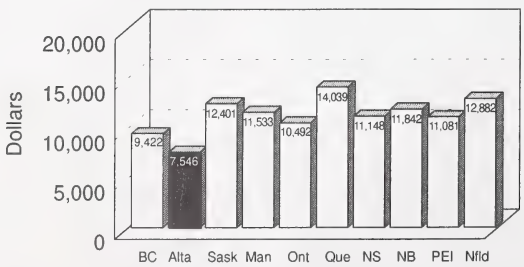
Selected Taxes Payable by a Family Earning $30,000 (1995)



Selected Taxes Payable by a Family Earning $55,000 (1995)



Selected Taxes Payable by a Family Earning $100,000 (1995)

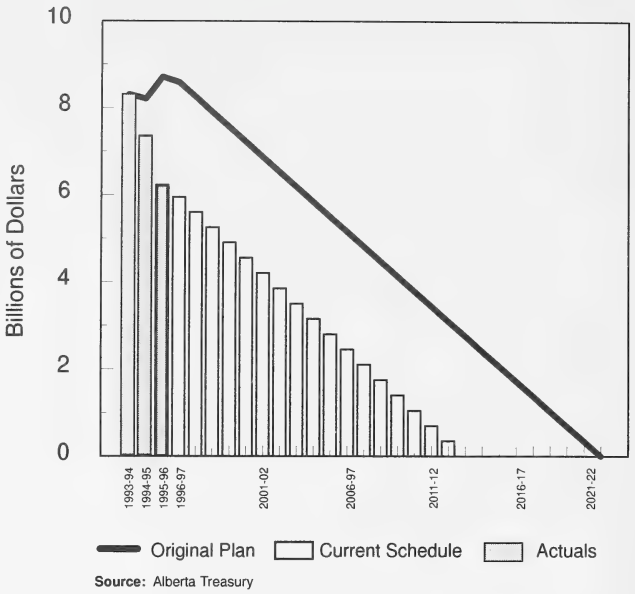


Source: Alberta Treasury

Net Debt

Albertans are concerned about the amount of debt the province owes. In 1993-94 the province's total net debt (the difference between assets and liabilities and excluding pension liabilities) exceeded $8 billion. Net Debt is an indicator of the financial strength of the province and the long-term performance of the government. A high amount of debt becomes a burden to future generations of Albertans. The province has established a legislated plan to eliminate the net debt over a maximum of 25 years, beginning in 1997-98.

Net Debt (Excluding Pension Liabilities)



Source: Alberta Treasury

Results

Net debt payments are ahead of schedule due to early payments in the last two years. The net provincial debt in 1995-96 is $6.22 billion compared to the original projection of $8.71 billion in the Budget '95 Plan. Early debt retirement payments have put the province about 8 years ahead of schedule.

Goal

Our goal is to maintain a balanced, stable financial situation in the province and to provide, open, efficient and accountable government, including the elimination of Alberta's net debt.

Measure

The Net Debt measure compares the net debt of the province against the targets set out under the Balanced Budget and Debt Retirement Act and the province's annual budget.

Target

The Balanced Budget and Debt Reduction Act requires net debt, excluding pension liabilities, to be eliminated over a 25-year period. Starting from the 1996-97 base, the province's net debt must be reduced 20 per cent by 2001-02, 40 per cent by 2006-07, 60 per cent by 2011-12, 80 per cent by 2016-17, and eliminated by 2021-22.

Net Debt

Methodology

The annual Public Accounts report the province's net debt for the year. Net debt is defined as the difference between the province's financial assets and its liabilities, excluding pension liabilities. Assets do not include capital assets such as land and buildings, but do include external Heritage Fund investments and loans to farmers and small businesses. Liabilities include General Revenue Fund and crown corporation liabilities, and accounts payable, less Heritage Fund and other internal debt holdings.

Strategies

- The **Alberta Government** plans to pay off the province's net debt at an average rate of $350 million a year beginning in 1997-98. The Balanced Budget and Debt Retirement Act requires that the net debt, excluding pension liabilities, be eliminated over a maximum of 25 years, no later than 2021-22. The Government has a separate plan to eliminate the unfunded pension liability.

- The **Alberta Government** will continue to budget conservatively on its revenue forecasts and use surpluses to pay down the debt.

- **Treasury** will keep Alberta's finances in order through prudent forecasts and monitoring the achievement of business and fiscal plan goals. Budgeting and business planning processes will be refined to maximize the efficiency of government, and **Treasury** will seek to maximize investment returns on the Heritage Fund and minimize borrowing costs, subject to acceptable levels of risk. Beginning in 1996-97, the Heritage Fund will be inflation proofed.

For additional measures, see the following ministries in Appendix 1:

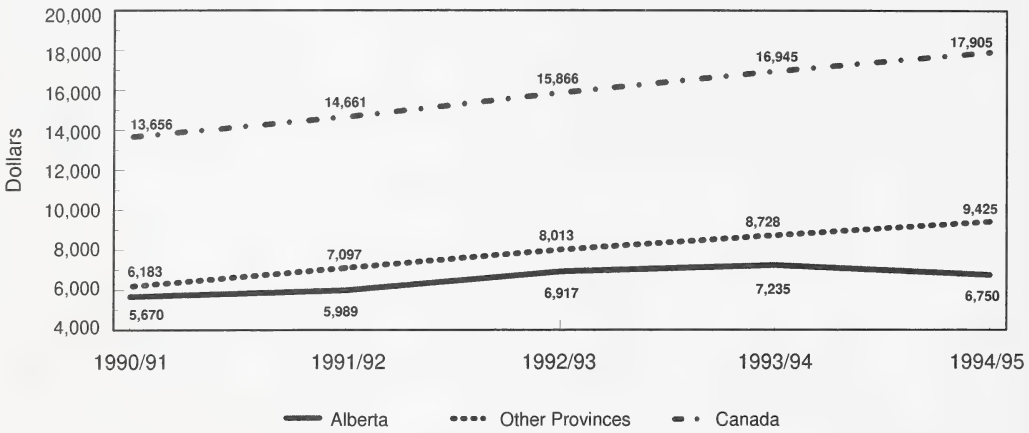
Treasury

Net Debt - Supplemental Data

This supplemental information compares Alberta's total public debt per capita against the average of eight other provinces (Standard and Poor's does not rate PEI) and Canada since 1991.

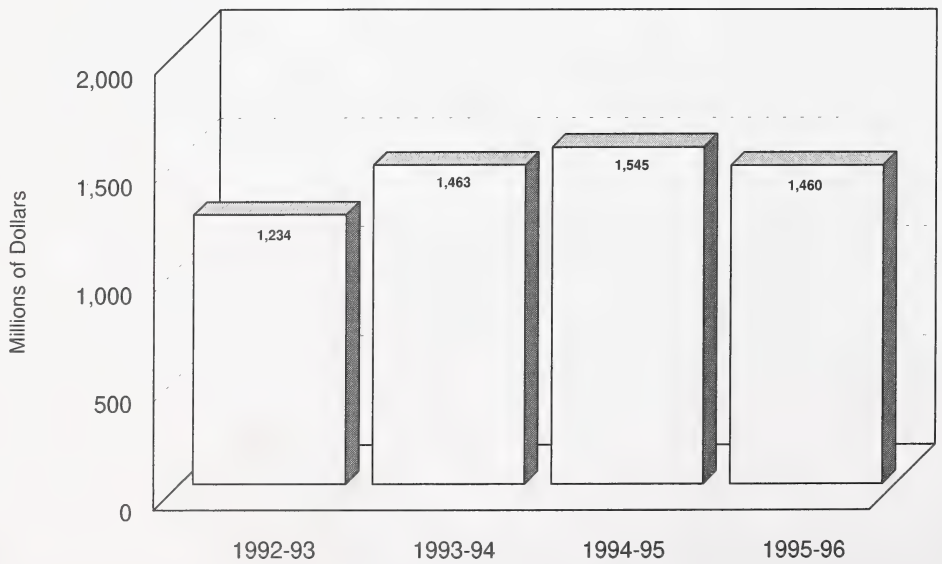
Standard and Poor's calculation of public debt includes direct debt, guaranteed debt, provincial corporation debt, and other public sector debt. This method nets off sinking funds, deposits with financial institutions to finance farm and small business loans, internal holdings of the Heritage Fund and the external liquid assets held in the Cash and Marketable Securities portfolio and the Canadian Investment Division of the Heritage Fund. Standard and Poor's does not calculate federal debt in the same way as for the provinces and therefore the federal figure is interest bearing federal government direct debt, net of current financial assets and net foreign exchange accounts.

Per Capita Public Debt



Source: Standard & Poor's, Alberta Treasury and Government of Canada Public Accounts

Actual Annual Debt Servicing Costs



Note: Alberta's budget document *Agenda '96* and Alberta Public Accounts 1995-96

Per Capita Gross Domestic Product

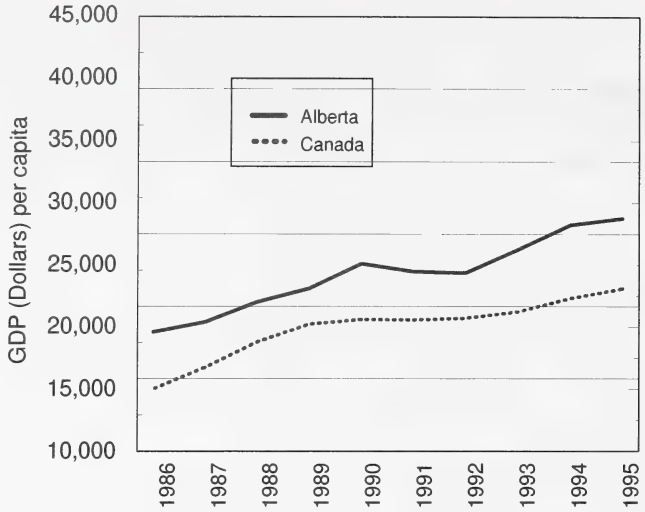
Gross Domestic Product (GDP) is a direct measure of the strength of Alberta's economy. It measures the total value of all the goods and services produced in Alberta in one year. Tracking this measure over time will show changes in Alberta's economy.

Results

Between 1994 and 1995 the Alberta economy, in terms of total Gross Domestic Product, grew by 2.7 percent. On a per capita basis, the growth rate was 1.5 percent.

Per Capita Gross Domestic Product

(Current Dollars)



	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Alberta	23,216	23,913	25,303	26,239	27,948	27,412	27,306	28,954	30,640	31,092
Canada	19,297	20,776	22,529	23,768	24,090	24,057	24,179	24,626	25,546	26,221
Percentage Change from Previous Year for Alberta		3.0	5.8	3.7	6.5	-1.9	-0.4	6.0	5.8	1.5

* 1995 Alberta GDP figures are estimates

Source: Statistics Canada, Cat. No. 13-213-PBB

Goal

Our goal is to build on the Alberta Advantage to create a climate conducive to investment, wealth generation and job creation, including a strong provincial economy.

Measure

The Per Capita GDP measure shows the total value of all goods and services produced in a region, on a per capita basis. It is a good indication of the strength of a region's economy.

Target

The target is to achieve a stable growth rate (in terms of Gross Domestic Product) of between 4 and 6 per cent per year for the Alberta economy.

Per Capita Gross Domestic Product

Methodology

Per capita GDP for Canada and Alberta is calculated using Statistics Canada information. Gross Domestic Product is shown in current dollars and therefore does not reflect the effects of inflation.

Strategies

- **Economic Development and Tourism** will develop and implement an investment promotion strategy.
- **Economic Development and Tourism** will offer trade consultation to assist Alberta companies to develop export markets.
- **Economic Development and Tourism** will implement its own regulatory reform plan and will continue to provide assistance and support to the Alberta Regulatory Reform Task Force.
- **Alberta Science and Research Authority** will foster a strong, efficient and effective science and research infrastructure and promote the transfer, application, and commercialization of science and technology-based products, processes and services for the creation of jobs and wealth.
- **Agriculture, Food and Rural Development** will implement the new Farm Income Stability program, a safety net program designed to provide stability against significant gross margin fluctuations, comply with international trade agreements and be less costly than previous safety net programs.
- **Energy** will attract resource development through streamlined regulatory policies, competitiveness in resource markets, and advancement of development of the oil sands resources.
- **Federal and Intergovernmental Affairs** will improve market access for Alberta business by further reducing barriers to trade.
- **Treasury**, in conjunction with **Economic Development and Tourism**, will evaluate the province's corporate tax system to ensure it remains competitive with other Canadian jurisdictions and with Alberta's other trading partners.

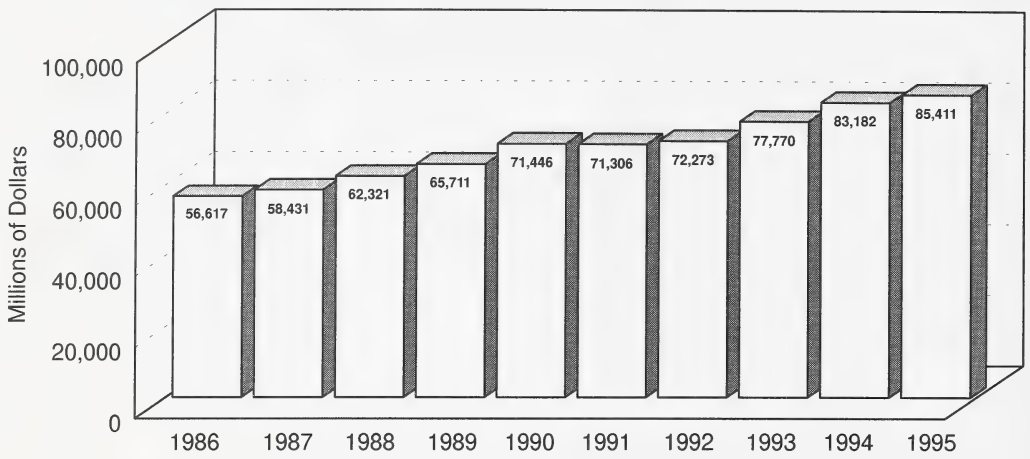
For additional measures, see the following ministries in Appendix 1:

Economic Development and Tourism
Alberta Science and Research Authority
Agriculture, Food and Rural Development
Energy
Federal and Intergovernmental Affairs
Treasury

Per Capita Gross Domestic Product - Supplemental Data

The following supplemental data shows Alberta's total Gross Domestic Product in current dollars. This data was used as the basis for calculating Gross Domestic Product on a per capita basis. The results show that Alberta's Gross Domestic Product (in current dollars) increased by 2.7 percent between 1994 and 1995.

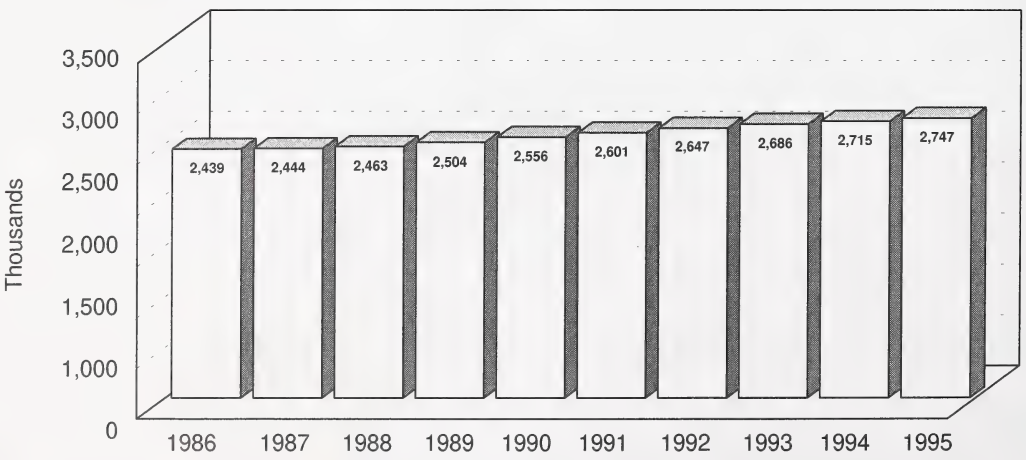
Alberta's Gross Domestic Product in Current Dollars



Source: Statistics Canada, Cat. No. 13-213-PBB

The following chart shows changes in Alberta's population which increased by 1.2 percent between 1994 and 1995.

Alberta's Population



Source: Statistics Canada

Provincial Credit Rating

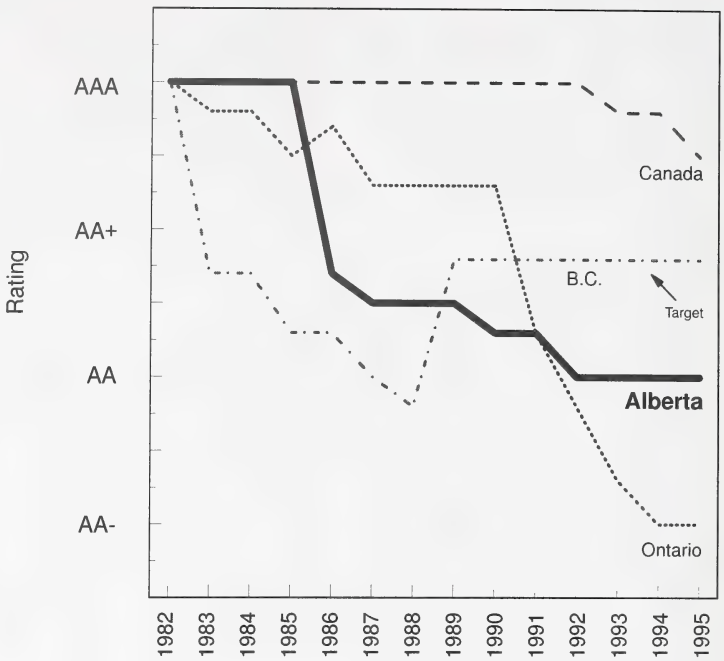
The province's credit rating is an indicator of the current and prospective fiscal position and the economic and political environment that affects the province's future strength and credit quality. This measure will monitor Alberta's progress towards a balanced, and stable financial situation.

Credit ratings provide investors with a system of grading the relative credit qualities of governments. A rating represents a credit rating agency's assessment of the bond issuer's ability to meet the obligations of a specific debt issue in a timely manner. Bonds that are rated "AAA" to "BBB" are judged to be of investment grade.

Results

Alberta's credit rating in 1995 was AA, second only to British Columbia and Canada.

Blended Credit Rating



Source: Alberta Treasury

Note: The blended credit rating is an average of the credit ratings issued by the following credit rating agencies: Standard and Poor's, Moody's, Dominion Bond Rating Service, and Canadian Bond Rating Service.

Goal

Our goal is to maintain a balanced, stable financial situation in the province, including a high credit rating.

Measure

The Provincial Credit Rating measures the relative quality of provincial bonds over time. A high credit rating reflects investor confidence in the financial soundness of the province and results in reduced borrowing costs.

Target

The target is to achieve the highest credit rating amongst the provinces.

Provincial Credit Rating

Methodology

The Provincial Credit Rating measure is developed using blended rate of domestic debt assessments by Standard and Poor's, Moody's, Dominion Bond Rating Service, and the Canadian Bond Rating System.

Strategies

- The **Alberta Government** will work towards achieving the highest possible provincial credit rating by maintaining a sustainable balanced budget, keeping expenses at an affordable level, and paying down the debt using any surplus revenues.
- **Treasury** will seek to keep Alberta's finances in order through prudent forecasts and monitoring the achievement of business and fiscal plan goals. Budget processes and financial mechanisms will be refined to maximize the efficiency of government, and Treasury will make public timely, relevant, and understandable information about the government's finances.

For additional measures, see the following ministries in Appendix 1:

Treasury

Job Creation

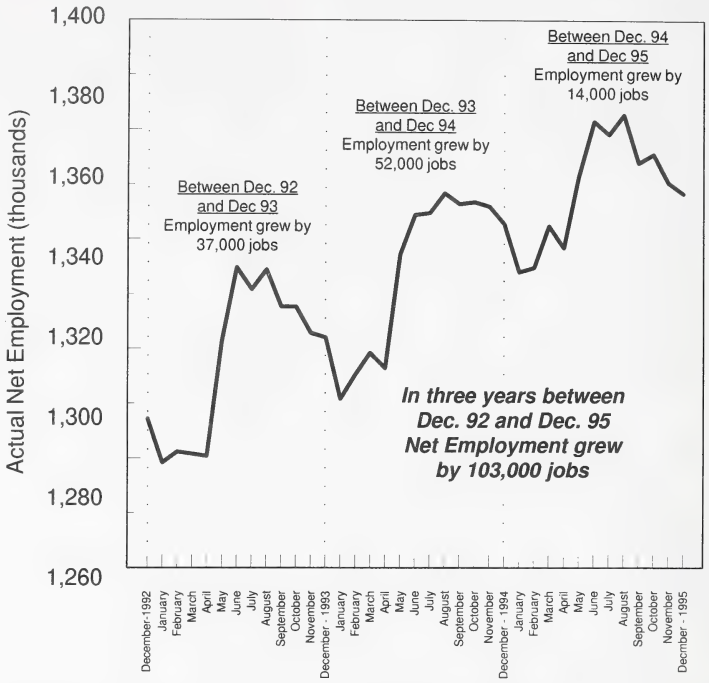
The availability of employment opportunities is a top priority for Albertans. This measure shows the net number of jobs created in Alberta's economy. This measure is one indicator of the growth of the economy and an indicator of the confidence Albertans have in the strength and future prospects of the province. Job creation increases domestic demand, fueling the economy and reducing the need for government transfers.

Results

In the last three years between December 1992 and December 1995, Alberta recorded a net employment growth of 103,000 jobs (net employment growth is the number of new jobs less the number of jobs lost in the province).

Net Employment Growth in Alberta

December 1992 to December 1995



Source: Statistics Canada - Labour Force Survey

Goal

Our goal is to build on the Alberta Advantage to create a climate conducive to investment, wealth generation, trade, and job creation. That means, more jobs, particularly higher skilled, higher wage jobs.

Measure

The Job Creation measure monitors the annual average net employment growth (new jobs less jobs lost) in Alberta for those aged 15 years and older.

Target

The four-year target is to create 110,000 jobs between December 1992 and December 1996. Beyond 1996, the target will be to maintain a 2.5 percent annual growth rate in employment.

Job Creation

Methodology

Statistics Canada obtains information on employment growth as part of its monthly Labour Force Survey.

Strategies

- **Economic Development and Tourism**, in conjunction with the **Alberta Economic Development Authority**, is coordinating the development of *A New Economic Development Strategy* with both private and public sector joint involvement. The Strategy will focus Alberta's economic policy priorities on strengthening the Alberta Advantage and encouraging employment and economic growth. This is part of the Ministry's current emphasis on seeking to establish a policy, regulatory, and strategic framework within government that enhances the competitiveness of Alberta's businesses and supports their lead role in helping to expand Alberta's economy.

- **Economic Development and Tourism** is targeting specific industry sectors and businesses, emphasizing greater business use of new technologies and communicating the advantages of doing business in Alberta. They are also encouraging business to expand exports by providing assistance in market development, promotion and sales delivery of key Alberta products and services, not only in Alberta's traditional U.S. export market but by expansion and diversification in the growing markets of Asia Pacific, Latin America, the Middle East and Eastern Europe.

- **Treasury** will be coordinating the tax plan proposed in *Agenda '96* including improvements to Alberta's tax advantage for business that will help maintain a competitive level playing field across industries and remove tax disincentives that impede employment and investment.

For additional measures, see the following ministries in Appendix 1:

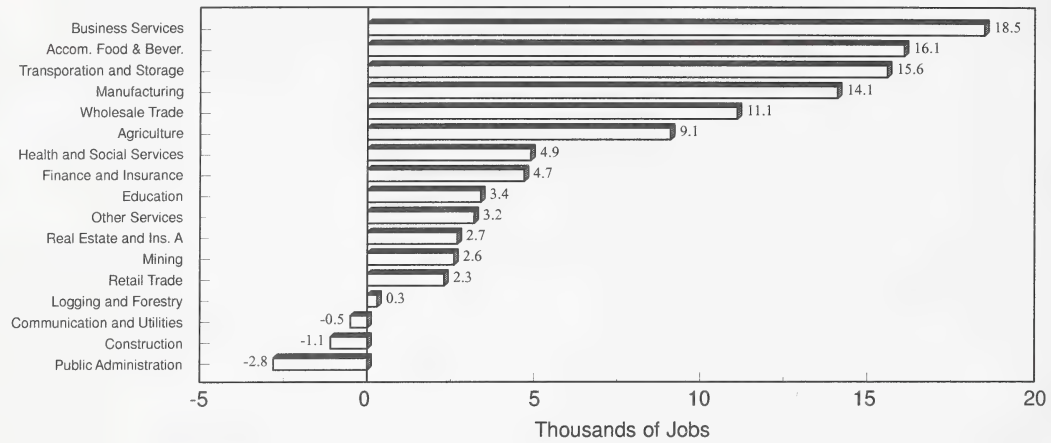
Economic Development and Tourism
Treasury

Job Creation - Supplemental Data

The following supplemental information provides more information on the nature of employment growth in Alberta. The first chart below shows employment growth by industry between December 1992 and December 1995. The business services, accommodations, food, and beverage, and transportation and storage industries showed the largest growth rates. Employment declined in the public administration, construction, and communication and utilities sectors of the economy.

Alberta Employment Growth by Industry

December 1992 to December 1995

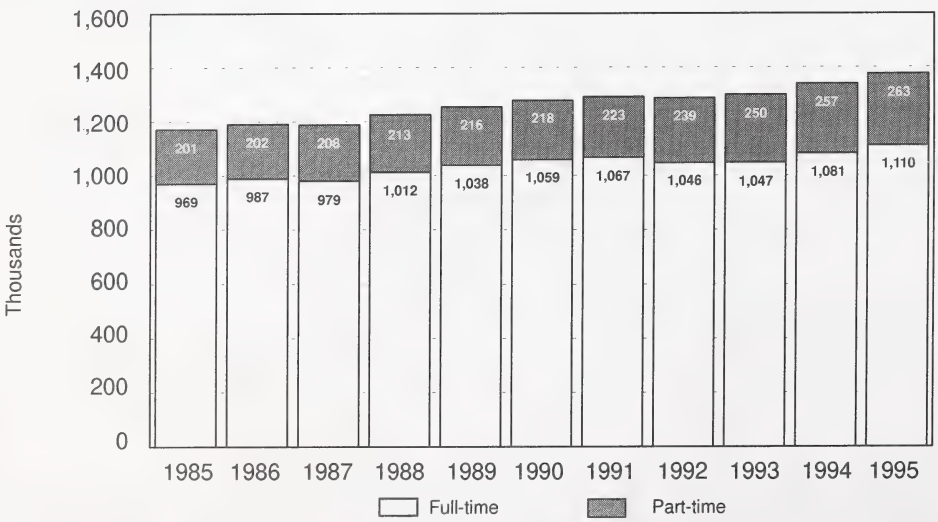


Note: Figures are based on seasonally unadjusted employment figures by industry. Rounding errors may occur.
Source: Statistics Canada - Labour Force Survey

The following chart shows full-time and part-time employment growth between 1985 and 1995, on an annual basis. In 1995 full-time employment represented roughly 81 percent of total employment. Part-time employment represented 19 percent of total employment in 1995, up slightly from 1985 when part-time employment was 17 percent of total employment.

Full-Time and Part-Time Employment in Alberta

1985 to 1995



Note: Figures are based on annual average seasonally unadjusted employment figures.
Source: Statistics Canada - Labour Force Survey

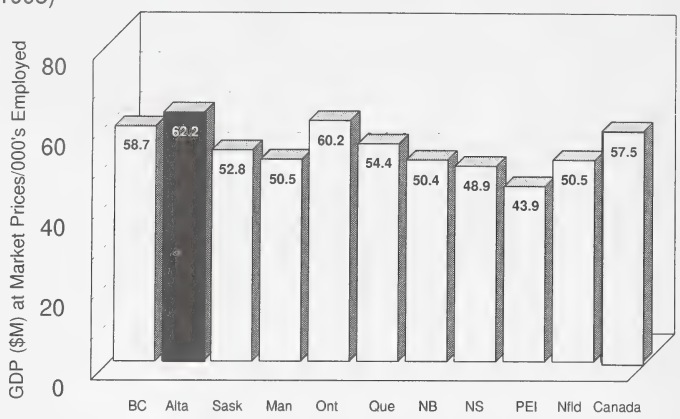
Skill Development

With a rapidly changing environment, Alberta businesses and industries need to remain competitive in markets around the world. This requires a highly skilled and productive work force and an effective match between skill development and skill demands. Labour force productivity is one indicator of the effectiveness of this match.

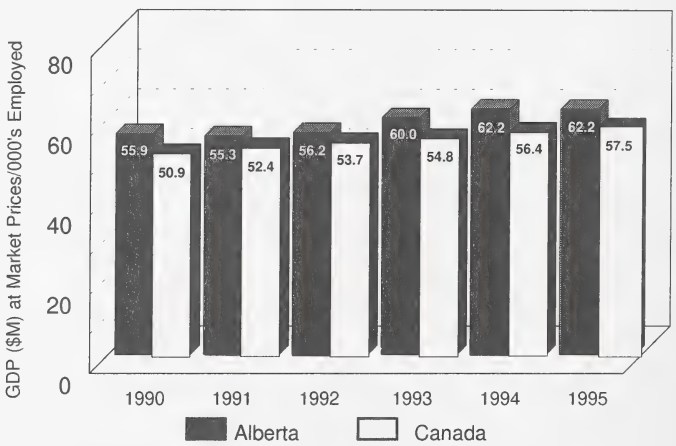
Results

Alberta's labour force productivity (in terms of Gross Domestic Product per thousand employed) continued to lead the rest of Canada in 1995.

Comparison of Provincial Labour Force Productivity (1995)



Comparison of Alberta and Canada Labour Force Productivity (1990 to 1995)



Source: Statistics Canada: Cat. Nos. 13-213 and 17-201

Goal

To ensure that Alberta has a well-educated, productive and talented workforce.

Measure

The Skill Development measure reflects the match between the skill levels and demand in the Alberta labour force relative to other Canadian provinces. A good match between labour force skills and the skills demanded by employers will have a positive effect on productivity.

Target

The target is to increase the labour force productivity of Alberta. A target will be set once more data is obtained.

Skill Development

Methodology

Labour force productivity is shown in terms of Gross Domestic Product (GDP) per thousand persons employed using Statistics Canada data.

Strategies

- **Advanced Education and Career Development** will be working on the development of a high quality and efficient adult development program. This program, to be developed in consultation with the public, will be learner centered, career focused, outcome-based, articulate, and cost-effective.
- **Advanced Education and Career Development** will further develop alternative routes to employability to assist Albertans not pursuing post-secondary education.
- **Advanced Education and Career Development** will create new paths for completing degrees to provide Albertans with learning opportunities that build on their completion of diploma and university transfer programs.
- **Advanced Education and Career Development** will help improve the knowledge and skills of Albertans, particularly as they relate to employability.
- **Education** will act on the business involvement recommendations of the Alberta Members of the Legislative Assembly Implementation Team.

For additional measures, see the following ministries in Appendix 1:

Advanced Education and Career Development
Education

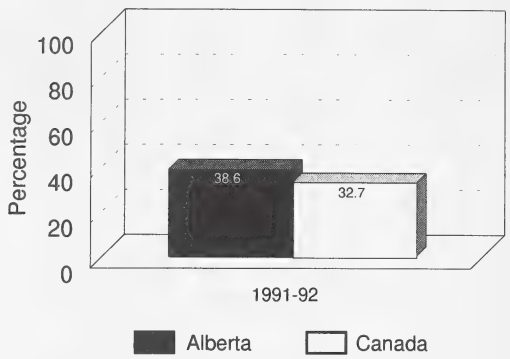
Skill Development - Supplemental Data

Because of the complexity of measuring skill development, other supplemental measures are included to provide context. Taken together, these measures show different aspects of developing a skilled labour force.

Participation Rate in Programs and/or Courses

- This measure shows the percentage of all adults aged 17 and older participating in a program and/or courses.
- Courses are work-related or recreational. Programs are a selection of several courses.
- The 1994 Statistics Canada Adult Education and Training Survey has been completed and will be published next year.

Participation Rate of Albertans in Programs and/or Courses

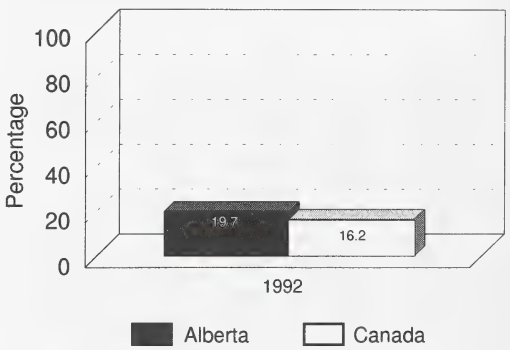


Source: Statistics Canada 1992 Adult Education and Training Survey

Individual Employees Who Said They Received Training From Their Employer

- This measure shows the percentage of Albertans who said that they received individual training sponsored by the employer.
- The measure is based on a household survey sample from the Labour Force Survey. It is based on adults aged 17 or more and excludes youths aged 17-19 who were in full-time education and Albertans over 70.

Percentage of Individual Employees Who Said They Received Training from Employers

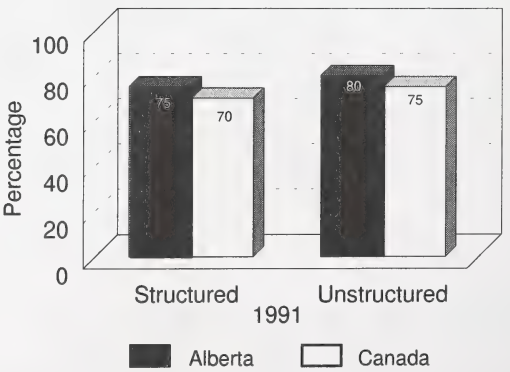


Source: Statistics Canada 1992 Adult Education and Training Survey

Percentage of Employers Who Said They Provided Training for Employees

- This measure shows the percentage of private sector employers in Alberta who said they provide employee training (structured and unstructured).
- The survey was intended to provide baseline information on the level of training in Canada. Survey results were based on a sample of private sector firms in Canada. Survey data is not available on a regular basis.
- Structured training includes all training activities that have a structured form; that is, have a predefined objective, specific content, and progress that is monitored and/or evaluated. Unstructured training refers to informal/on-the-job training; that is, training other than structured training.

Percentage of Employers Who Said They Provided Training for Employees



Source: 1991 National Training Survey conducted by the Canadian Labour Market and Productivity Center

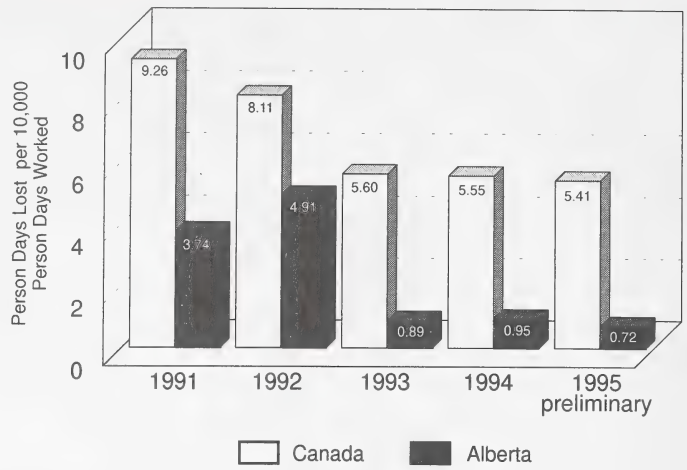
Workplace Climate

Investment in the province is, to some extent, determined by cooperative labour relations, fairness, and occupational health and safety in the workplace. These indicators measure not only protective actions, but also proactive steps such as increasing levels of partnership among business, labour and government. It is an important ingredient in the quality of life for working Albertans.

Results

The amount of time lost due to both labour disputes and injuries in the workplace declined in 1995. The impact of labour disputes declined by 24% from 0.95 in 1994 to 0.72 person days lost to disputes per 10,000 person days worked in 1995. Alberta had the lowest level of labour disputes in Canada in 1995. Time lost due to workplace injuries declined by 6.2% to 29.42 person-days lost per 10,000 person-days worked.

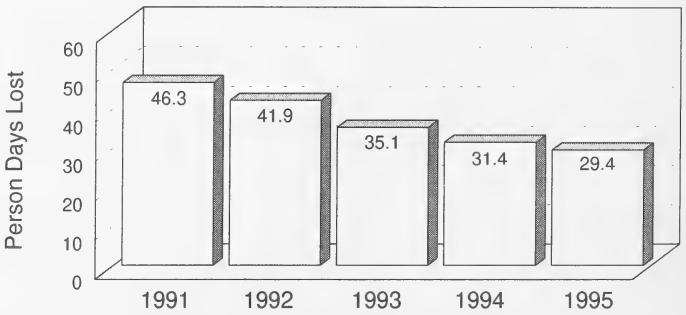
Person Days Lost to Disputes per 10,000 Person Days Worked



Source: Alberta Labour Human Resources Development Canada; Statistics Canada Cat. 77-001; Cat. 72-209 (since 1994); and Cat. 72-004 (before 1994)

Time Lost Owing to Injuries - Alberta

(Person-Days Lost per 10,000 Person-Days Worked)



The methodology used to produce Lost-time statistics was changed in 1995. These figures are different from those produced in ***Measuring Up*** 1995.
Source: Alberta Labour and Workers' Compensation Board

Goal

Our goal is to ensure that Alberta has a well-educated, productive, and talented workforce, and a safe and attractive workplace.

Measure

We have adopted two measures for workplace climate. The first tracks time lost owing to strikes and lockouts and provides an indication of labour stability. The second tracks days lost owing to injuries or death and reflects safety in the workplace.

Target

The target is to minimize the amount of time lost owing to workplace disputes and injuries.

Workplace Climate

Methodology

Human Resources Development Canada provides data on days lost due to strikes and lockouts. The Alberta Workers' Compensation Board provides data on person days lost owing to injury and illness based on lost-time claims submitted by its clients.

Strategies

- **Labour** will assist the province's economic development by promoting high standards in the workplace in terms of organization, operation, safety systems and health and safety.
- **Community Development** will work to reduce discrimination and foster equality so all Albertans can participate fully in the social and economic life of the province.

For additional measures, see the following ministries in Appendix 1:

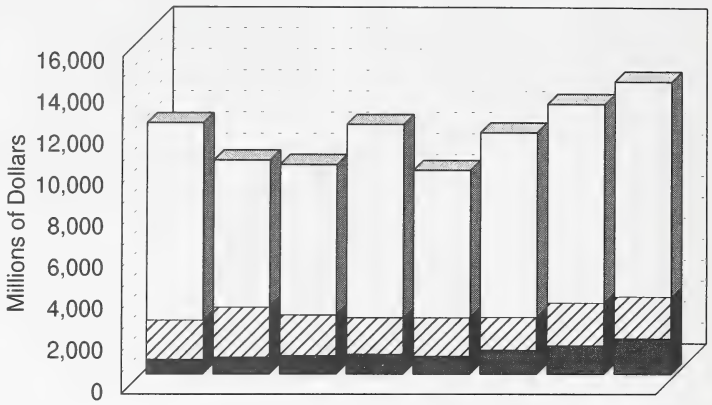
Labour
Community Development

Resource Wealth

Alberta's natural resources are the foundation of the provincial economy. This measure provides an indicator of the economic importance of Alberta's renewable and non-renewable natural resources. Ensuring the sustained use of renewable resources and wise use of non-renewable resources will help to sustain economic prosperity and well-being for current and future Albertans.

Gross Domestic Product of Oil and Natural Gas, Forestry and Agriculture Industies in Alberta

In Current Dollars



	1987	1988	1989	1990	1991	1992	1993	1994
Oil & Gas	9,413	7,028	7,178	9,219	7,041	8,821	9,504	10,264
Agriculture	1,848	2,361	1,930	1,723	1,806	1,549	2,009	1,986
Forestry	667	776	845	920	842	1,114	1,325	1,661
Total	11,928	10,165	9,953	11,862	9,689	11,484	12,838	13,911
% Change from Previous Year		-14.8	-2.1	19.2	-18.3	18.5	0.3	8.4

Source: Statistics Canada and Alberta Economic Accounts - 1994.

Results

Between 1993 and 1994 the economic output or Gross Domestic Product (GDP) of the oil and gas, forestry, and agricultural sectors increased by 8.4 percent to $13.9 billion. The forestry sector showed the largest growth increasing by 25 percent followed by the oil and gas sector which had an 8 percent increase. The agricultural sector output declined slightly by 1 percent. The oil and gas sector was by far the most important resource-based industry, representing 74 percent of the GDP from these three sectors.

Goal

Our goal is to work with industry and business to maximize the value of Alberta's energy and mineral resources industry, the agriculture and food processing industry, and forestry and tourism.

Measure

Resource Wealth measures the annual value to the Alberta economy (gross domestic product) from the production of oil and natural gas, forestry, and agricultural industries.

Target

The target is to achieve economic growth of 2 to 4 per cent per year (GDP in current dollars) for Alberta's renewable and non-renewable resource industries.

Resource Wealth

Methodology

The Alberta Provincial Economic Accounts provide information on the economic output (Gross Domestic Product) of the oil and natural gas, agriculture, and forestry (includes logging, wood, and paper and allied products) industries. This information is reported by Statistics Canada on an annual basis. These values provide a indication as to the benefit to the Alberta economy from the development of renewable and non-renewable resources.

Strategies

- **Agriculture, Food and Rural Development** is currently working with the agricultural community to ensure that optimum benefits are derived from Alberta's agri-food industries.
- **Economic Development and Tourism** is currently working in partnership with other government ministries and industries to strengthen Alberta's primary resource industries by encouraging more value-added manufacturing, processing, and service industries.
- **Energy** is currently working to secure a fair economic return from energy and mineral resource development by ensuring a stable, self-adjusting fiscal regime exists and that optimal recovery of the resource is realized.
- **Environmental Protection** is currently working to ensure that timber resources are managed in a sustainable manner to ensure the long-term viability of Alberta's forest products industry.

For additional measures, see the following ministries in Appendix 1:

Agriculture, Food, and Rural Development
Economic Development & Tourism
Energy
Environmental Protection

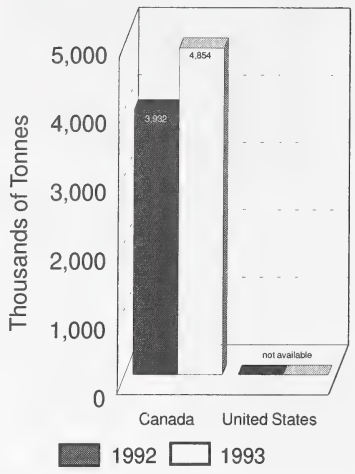
Export Trade and Transportation to Markets

Exporting goods and services to markets outside of Alberta is critical to the economy. This measure is an indicator of the effectiveness of Alberta's transportation systems, using the volume of goods transported as a proxy. Without an effective and efficient transportation system, exports of our goods and services would be hampered.

Results

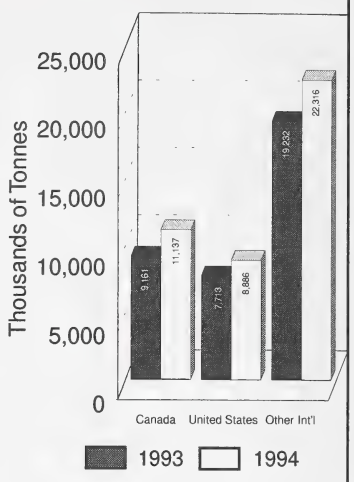
The most recent statistics show that between 1993 and 1994 the volume of goods shipped by rail increased 17.3%, pipeline shipments increased 10.3% and air cargo shipments increased 5.7% . Between 1992 and 1993 truck shipments to other provinces increased by 23.4%.

Truck Shipments



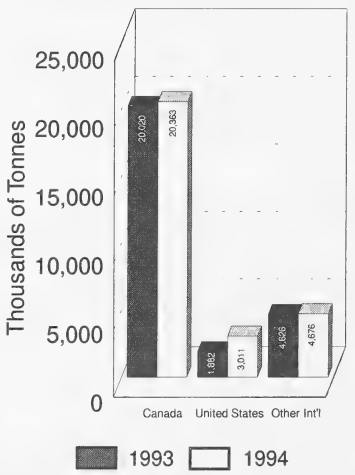
Source: Statistics Canada - Cat. 53-222

Rail Shipments



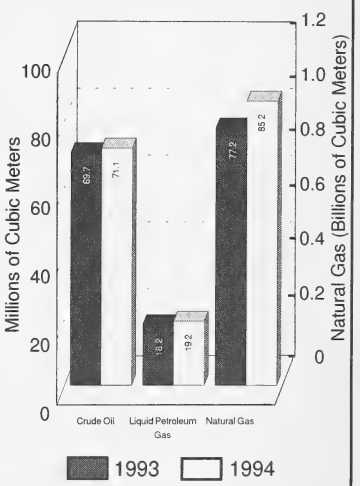
Source: Statistics Canada - Cat. 52-216

Air Cargo Shipments



Source: Statistics Canada - Cat. 51-005

Pipeline Shipments



Source: Statistics Canada - Cat. 55-201 and 57-205

Goal

To work with the private sector and other partners to open up opportunities for trade in new international markets, including ensuring that appropriate infrastructure is in place to enable the effective transportation of goods to market.

Measure

The Export Trade and Transportation to Markets measure provides an indication of the effectiveness of Alberta's transportation system to move goods and services to export markets. The measure uses volume of goods shipped by mode of transportation as one indicator of trade effectiveness. Value of exports is another indicator.

Target

The target is to increase the volume of goods exported from Alberta by 3% annually.

*(**Note:** A measure of the efficiency of Alberta's transportation system is being researched.)*

Export Trade and Transportation to Markets

Methodology

Statistics Canada monitors the value and volume of goods and services shipped by certain modes of transportation.

Strategies

- The **Alberta Government** will work to ensure that effective transportation links are available to support trade to export and domestic markets. This includes access to foreign markets and the availability of connections to international business partners.
- **Transportation and Utilities** will undertake strategic improvements to Alberta's North-South Trade Highway and pursue necessary infrastructure improvements that support the Alberta Advantage.
- **Agriculture, Food and Rural Development** will strive to improve access to domestic and world market opportunities. The ministry will recommend changes in federal and provincial policies in response to the repeal of the Western Grain Transportation Act.
- In the development of the new Economic Development Strategy, **Economic Development and Tourism** will work with the **Alberta Economic Development Authority** on issues such as taxation, trade barriers, access to markets and transportation.
- **Federal and Intergovernmental Affairs** will manage the implementation of intergovernmental trade agreements, coordinate Alberta's involvement in further negotiations on agreements, and manage disputes arising under intergovernmental agreements.

For additional measures, see the following ministries in Appendix 1:

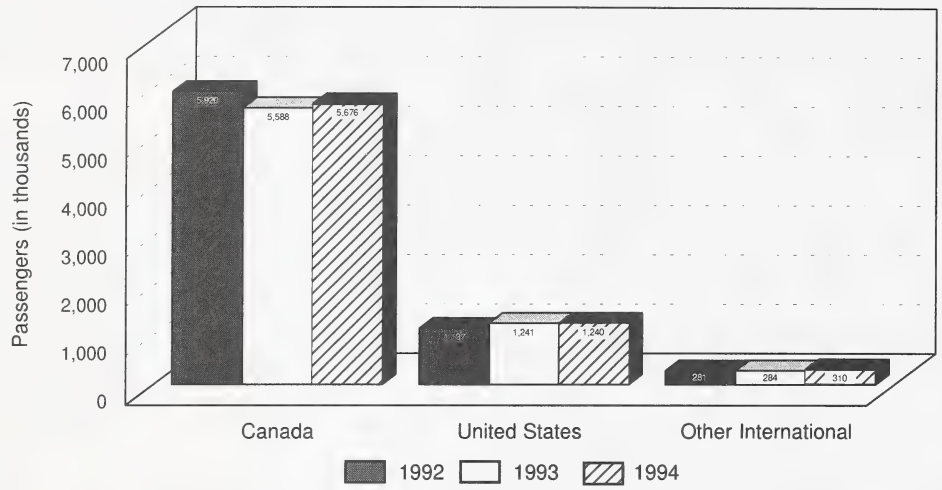
Transportation and Utilities
Agriculture, Food and Rural Development
Economic Development and Tourism
Energy
Federal and Intergovernmental Affairs

Export Trade and Transportation to Markets - Supplemental Data

One shortcoming of using volume of goods shipped, is that an increase in the export of "value-added" products could result in a decrease in the total "volume" of goods shipped. Decreases in volume would have to be compared to any increases in value-added shipments.

The following graph provides information on air passenger traffic, as an indicator of trade related to the expertise and advisory services of Albertans.

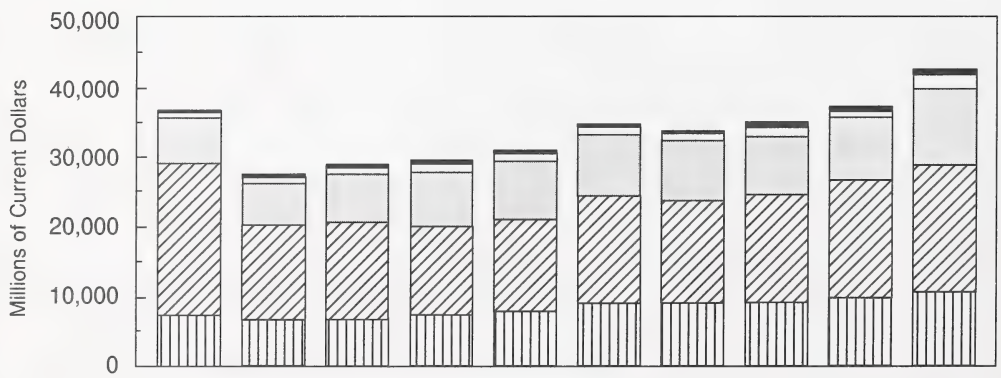
Air Passenger Traffic



Source: Statistics Canada - Cat. 51-005

The following chart shows the relative value of Alberta exports, by commodity or service, between 1985 and 1994. Between 1993 and 1994 the value of Alberta exports increased 14.1 percent.

Value of Alberta Exports by Major Commodity or Service Group



	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Animals	273	300	280	441	438	445	484	666	740	815
Grains	949	820	1,065	1,347	1,301	1,165	1,134	1,186	937	1,810
Manufacturing	6,759	6,156	6,941	7,919	8,401	8,892	8,519	8,397	9,174	11,068
Minerals	21,894	13,477	13,982	12,582	13,253	15,487	14,602	15,701	16,888	18,361
Other Services	7,335	6,544	6,907	7,278	7,683	8,817	8,974	9,167	9,673	10,633
Total	37,210	27,297	29,175	29,567	31,076	34,806	33,713	35,117	37,412	42,687

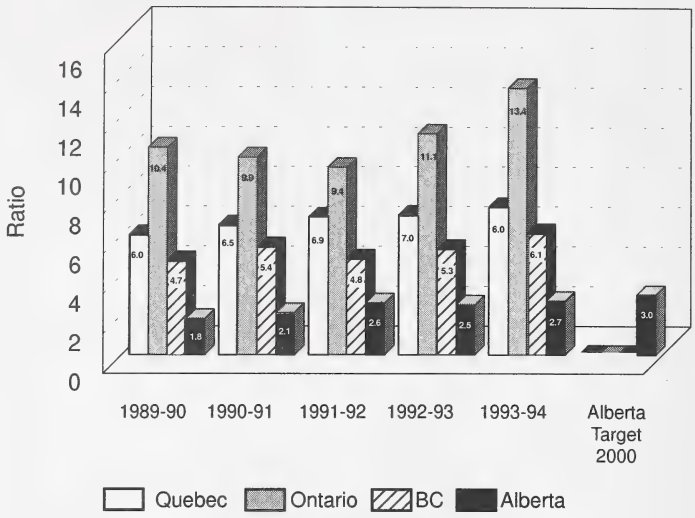
Note: Other Services includes travel, freight and shipping and other sources

Statistical Data Source: Alberta Treasury, Alberta Economic Accounts - 1994

Spending on Research and Development

A cornerstone of Alberta's economic strategy is to increase the proportion of products and services offered by Alberta businesses which incorporate leading-edge technologies. Such products and services command a higher value in world markets and will contribute to increased prosperity in Alberta. To remain competitive, Alberta businesses must make use of, develop, and apply new technologies. It is vital that Alberta's business environment is conducive to the development and use of these new technologies.

Ratio of Private Sector to Provincial Government Research and Development Spending



Note: 1993-94 figures are estimates.

Source: Statistics Canada; Catalogue No. 88-001

Results

The ratio of private sector to provincial government research and development spending or investment increased in 1993-94 to 2.7:1.

Goal

To develop the full potential of ideas and innovations to put Alberta at the forefront of Research and Development.

Measure

The Spending on Research and Development measure monitors the ratio of private to provincial government research and development spending or investment over time and compares it to selected other provinces.

Target

The target is to increase the ratio of private to provincial government research and development spending or investment to 3.0:1 by the year 2000.

*(**Note:** A new measure for research and development is being developed for Measuring Up - 1996-97 Results.)*

Spending on Research and Development

Methodology

Statistics Canada aggregates provincial science survey data. Industrial expenditures were divided by provincial government expenditures.

Strategies

- The **Alberta Government** seeks to adopt policies that will lever increased private sector spending on R&D. The government also wants to accelerate technology adoption in Alberta by supporting the establishment and distribution of up-to-date information on the industrial applications of leading-edge technologies to Alberta businesses.
- **Alberta Science and Research Authority**, as the coordinating body for the government's research expenditures, is currently in the process of obtaining public input to help identify research priorities for Alberta.
- **Alberta Science and Research Authority** will develop a science and research policy and priorities that are compatible with the economic and social priorities of the government.
- **Advanced Education and Career Development** established a new policy framework for university research to foster excellence in the creation and sharing of new knowledge.
- **Advanced Education and Career Development** established a Research Excellence Envelope to assist universities to make front-end investments to attract new researchers in areas of research excellence.
- **Economic Development and Tourism** will identify and acquire information on the sources and means of accessing new technology such as biotechnology, advanced materials, information technologies, telecommunications, and other innovations and distribute it widely to aid their introduction and use by Alberta industry.
- **Economic Development and Tourism** will encourage and assist ED&T commercial application of technology and research, generate awareness of new knowledge-based business opportunities, and champion applied research and technology development.
- **Economic Development and Tourism** will work with ASRA and other ministries to expedite the development of consistent and effective economic policy alternatives that enhance technology "management": development, transfer, adaptation, adoption, and commercialization.
- **Economic Development and Tourism** will partner with Alberta's public and private technology development companies and organizations to help ED&T achieve the government goal.
- **Energy** is promoting strategic energy and mineral resource research to reduce development costs and increase efficiency and value from the processing of non-renewable resources.

For additional measures, see the following ministries in Appendix 1:

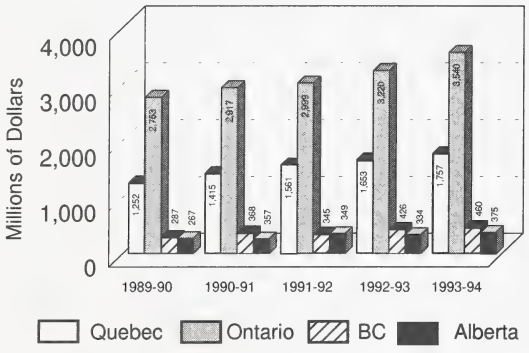
Alberta Science and Research Authority
Advanced Education and Career Development
Economic Development and Tourism
Energy

Spending on Research and Development - Supplemental Data

NOTE: A new measure for research and development is being developed for *Measuring Up 1996-97 Results*. The new measure will complement the new performance measures of the Alberta Science and Research Authority which include a measure of socioeconomic benefits to Albertans from investments in science and research, total investment (from all sources) in science and research, and number of people employed in the science and research industries. In addition, the new measure will assess the adoption rate by Alberta industries of new technologies, both home-grown and imported technologies.

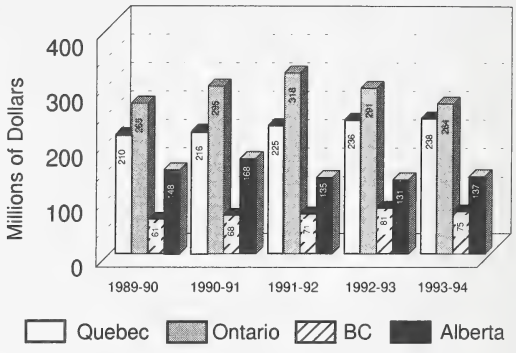
The following charts show total spending or investment (in millions of dollars) by private industry and provincial governments.

Industrial (Private Sector) Total Investment in Research and Development



Note: 1993-94 figures are estimated.
Source: Statistics Canada - Cat. No. 88-001, Vol. 19

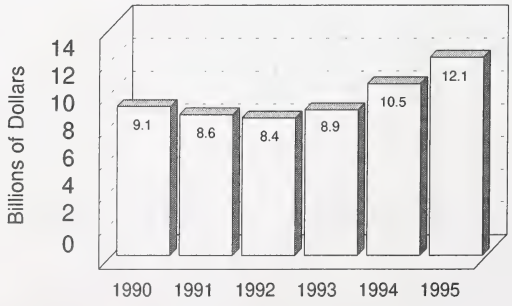
Provincial Government Total Investment in Research and Development



Note: 1993-94 figures are estimated.
Source: Statistics Canada - Cat. No. 88-001, Vol. 19

Success in establishing greater growth in the use of advanced technologies is an indication of Alberta's ability to compete in the profitable value-added segment of world markets. The following chart, showing annual growth in the value of manufacturing shipments using advanced technology, is an indicator of how well Alberta business is adopting new product and process technologies. If the value of shipments increase, this indicates that the volume of goods produced with newer technologies is increasing. Further, it could also indicate that Alberta is becoming more competitive in these areas of manufacturing. Data drawn from Statistics Canada Cat. 31-203 shows the total value of manufacturing shipments from technology-intensive industries, including advanced materials and plastics, machinery, transportation equipment, electrical/electronics (telecommunications, medical), refined petroleum, and coal and chemical products.

Alberta Manufacturing Shipments Advanced Technology Sectors

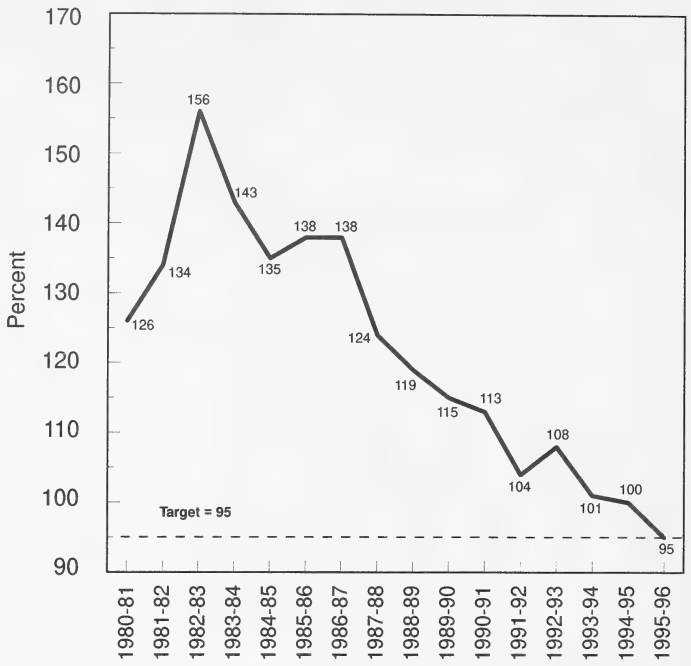


Source: Statistics Canada - Cat. 31-203, table 10

Cost of Government Per Capita

An indicator of the fiscal health of the province is the level of government expenditures. This measure compares the Alberta Government's per capita expenditure with the average of the other nine provinces.

Per Capita Alberta Government Expenditure as a Percentage of the Other Nine Provinces



Statistical Data Source: Statistics Canada (Financial Management Statistics)
Note: 1995 figure does not include Ontario.

Results

The per capita Alberta Government expenditures in 1995/96 were 5% below the average expenditures of eight other provinces.

Goal

To maintain a balanced, stable financial situation in the province and to provide open, efficient, and accountable government.

Measure

The Cost of Government per Capita measure compares the per capita cost of government across provinces.

Target

The target is for Alberta Government expenditures to remain 5 percent below the average of the other nine provinces.

Cost of Government Per Capita

Methodology

Expresses the per capita cost of provincial government as a percentage of the average per capita expenditure of the other nine provinces. These statistics are from the System of Government Financial Management Statistics of Statistics Canada.

Strategies

- **Treasury** will monitor achievement towards the goals of the business and fiscal plans.
- **Treasury** will refine and develop budget processes and financial mechanisms to maximize the efficiency of government with incentives for cost-effective results supported by performance measures.
- **All Alberta government ministries** are actively exploring means of increasing the efficiency of their operations and are committed to living within the financial limits set by government.

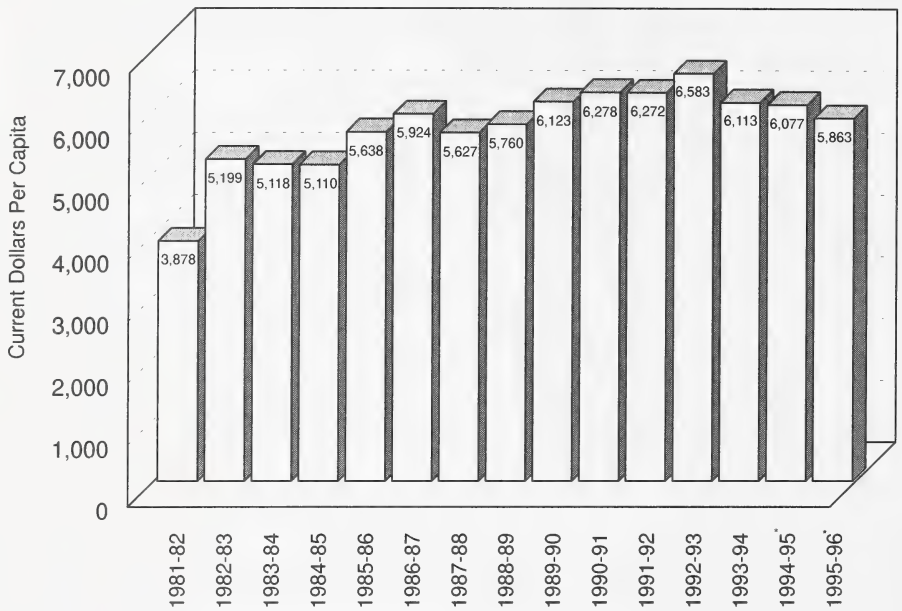
For additional measures, see the following ministries in Appendix 1:

Treasury

Cost of Government Per Capita - Supplemental Data

The following supplemental information provides the actual expenditures by the Alberta Government on a per capita basis, shown in current dollars, between 1981-82 and 1995-96. In 1995-96 per capita spending declined to $5,863 per person from an all time high of $6,583 in 1992-93.

Alberta Government Expenditures Per Capita 1981/82 to 1995/96
(in current dollars)



Source: Statistics Canada, Public Institutions Division

Note: *In 1994, the province assumed full responsibility for basic education. As a result previously locally funded education is now included as a provincial expenditure. This results in approximately $350 increase in provincial government per capita expenditure.

Preservation ... preserving the Alberta tradition

This core business describes government's work in fostering:

- strong communities
- a safe society where justice prevails
- a clean environment
- pride in Alberta and strength within Canada, and
- strong values and culture.

Six core measures have been identified to measure the government's progress in meeting its goals in the preservation core business. Highlights for this year's report include:

- Both property and violent crime rates have dropped since 1993. Property crimes are down by 9 percent and violent crimes down by 14 percent. At the same time, Alberta's rates continue to be slightly above the national average.

- Rates for serious youth crimes also have gone down. Property crimes by youths fell by 16 percent and violent crime is down by 9 percent. Youth crimes rates in Alberta are higher than the national average.

- As a measure of the sustainability of Alberta's natural resources, Alberta's timber harvest remains below the annual allowable cut. Oil and gas reserves have been stable over the past seven years.

- The quality of Alberta's rivers is generally fair to good, but there are parts of rivers that can't be used for recreation purposes. Water quality is poorer downstream from major cities or from large industrial or agricultural developments.

- On average, the quality of Alberta's air was either good or fair every day in 1995.

- Between 1986 and 1991, there was very little change in how Alberta's land is used. The biggest portion of Alberta's land is used by forests.

In the preservation core businesses, the following challenges lie ahead:

- While Alberta's rates for property and violent crimes have gone down, they continue to be above the Canadian average. Albertans want to feel safe in their own homes and communities. There are continuing concerns about youth crimes and pending changes to the Young Offenders Act.

- Protecting Alberta's environment and ensuring that it is carefully managed for future generations is important. Economic development needs to be balanced with sustaining the environment. Increasingly, environmental practices are considered by companies looking to locate, invest or do business in Alberta.

Preservation

preserving the Alberta tradition.

Government Goals

- To protect the safety and security of Albertans and ensure that Alberta is a safe place to live and raise families.
- To ensure that Alberta's renewable resources are sustained and the high quality of Alberta's environment is maintained.
- To preserve and increase appreciation for Alberta's diverse natural, historic, and cultural resources.
- To maintain Alberta's strong position in Canada and work with other governments to ensure an effective federal system.
- To work in partnership with local governments to support strong and vibrant communities.
- To ensure that all Albertans can participate fully in the social, cultural, and economic life of the province.

Core Performance Measures

- ✓ Crime Rate
- ✓ Serious Youth Crime
- ✓ Resource Sustainability
- ✓ Air Quality
- ✓ Water Quality
- ✓ Land Quality

Crime Rate

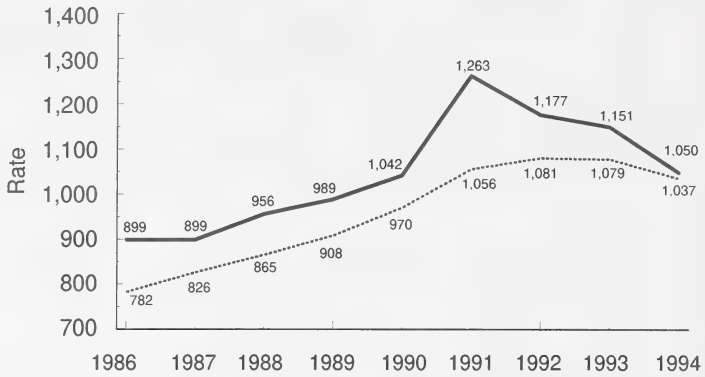
Albertans want their homes and communities to be safe. The distribution and type of crime indicates the relative safety of Alberta communities. It may also be an indicator of the strength of families, the education system and our economy.

Crime is defined as the total number of *Criminal Code of Canada* incidents.

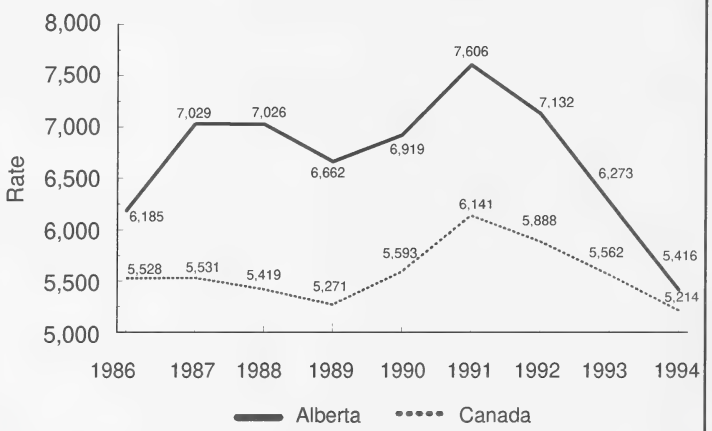
Results

Since 1993, the property and violent crime rates have fallen by 9% and 14% respectively and the gap between Alberta and Canada has been narrowed over the past few years.

Violent Crime Rate per 100,000 Population



Property Crime Rate per 100,000 Population



Source: Uniform Crime Reporting Survey

Goal

Our goal is to protect the safety and security of Albertans and ensure that Alberta is a safe place to live, work and raise families.

Measure

Measures the violent and property crime rate over time and compares these to the Canadian violent and property crime rates. A formal report must be filed with the police to affect the crime rate.

Target

To reduce Alberta's crime rates below the national average by the year 2000.

Crime Rate

Methodology

Crime statistics are collected using the Uniform Crime Reporting Survey which is a common survey used to measure police reported crime in each Canadian jurisdiction. Population data from Statistics Canada is used to convert reported crime into crime rates per 100,000 population.

Crime rates may vary owing to the differences in juridictional enforcement methods, charging practices and available diversion programs, rather than incidence of actual crime.

Strategies

- **Justice** will focus its resources on serious and violent crime and continue to promote community policing and increase community involvement in the administration of justice throughout the province.
- **Family and Social Services** will strive to help individuals be independent and to keep children safe. The ministry will focus on prevention and early intervention for children, be more responsive to the needs of Aboriginal people, and seek to ensure that spaces are available in shelters for those in need.

Standards

- Violent crime involves offenses that deal with the application or threat of application of force to a person including: homicide, attempted murder, assaults, sexual assaults, other sexual offenses, abduction, and robbery.
- Property crime involves unlawful acts with the intent of gaining property but do not involve the use or threat of violence against an individual. Property incidents include: breaking and entering, motor vehicle theft, theft over $1,000, theft $1000 and under, possession of stolen goods, and fraud.

For additional measures, see the following ministries in Appendix 1:

Justice
Family and Social Services

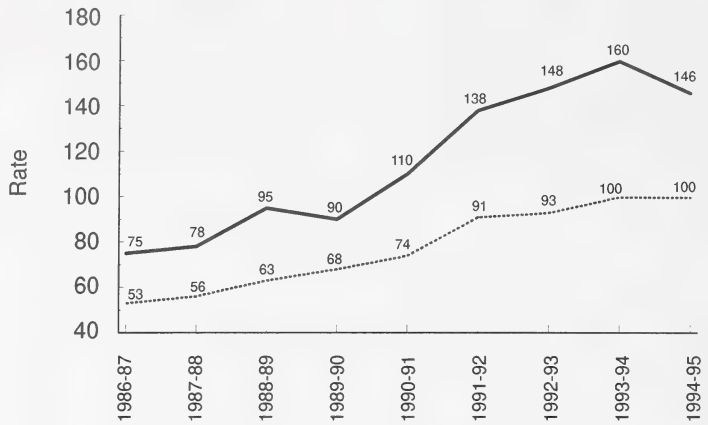
Serious Youth Crime

Albertans want their homes and communities to be safe. The distribution and type of youth crime indicates the relative safety of Alberta communities and is a general indicator of social stability. It may also be an indicator of the strength of families, the education system and our economy.

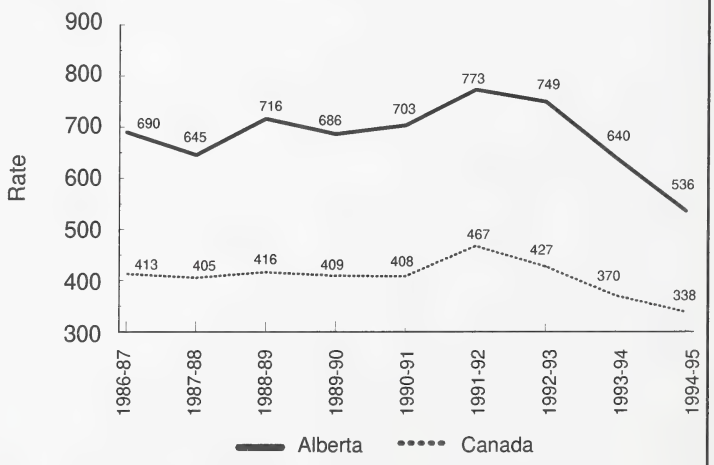
Results

The youth property and violent crime rate fell 16% and 9% repectively between 1993-94 and 1994-95. The gap between Alberta and Canada has also narrowed over this time period.

Young Offenders - Violent Crime Rate per 100,000 Population



Young Offenders - Property Crime Rate per 100,000 Population



Note: Canadian data excludes Ontario and NWT.
Source: Canadian Centre for Justice Statistics — Youth Court Statistics

Goal

Our goal is to protect the safety and security of Albertans and ensure that Alberta is a safe place to live, work and raise families.

Measure

Measures the violent and peoperty crime rate over time and compares these to the Canadian violent and property crime rates. Charges must be laid for reported crime to affect the crime rate.

Target

To reduce Alberta's crime rates below the national average by the year 2000.

Serious Youth Crime

Methodology

The Canadian Centre for Justice Statistics collects youth court data from each jurisdiction. The data is published in the annual Youth Court Statistics report.

Crime rates may vary owing to differences in the juridictions' enforcement methods, charging practices and available diversion programs rather than the incidence of actual crime.

Strategies

- **Justice** will assess the public consultations regarding the *Young Offenders Act* and develop a position for presentation to the federal government . In addition, Justice will facilitate the establishment of community justice committees and sentencing panels for youth.
- **Education** will work with education partners on improving student conduct to ensure safe, secure schools.
- **Family and Social Services** will focus on prevention and early intervention services for children.

Standards

- Violent crime involves offenses that deal with the application or threat of application of force to a person including: homicide, attempted murder, assaults, sexual assaults, other sexual offenses, abduction, and robbery.
- Property crime involves unlawful acts with the intent of gaining property but do not involve the use or threat of violence against an individual. Property incidents include: breaking and entering, motor vehicle theft, theft over $1,000, theft $1000 and under, possession of stolen goods, and fraud.

For additional measures, see the following ministries in Appendix 1:

Justice
Education
Family and Social Services

Resource Sustainability

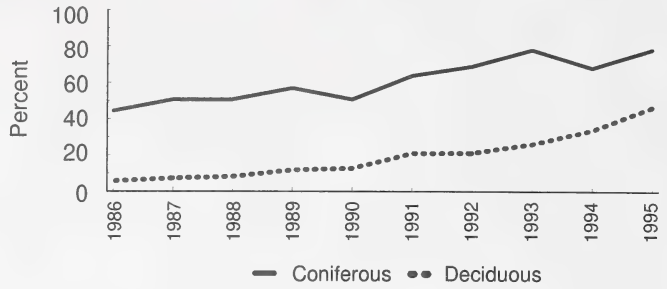
Alberta's natural resources are the foundation of our economy. Ensuring the long term sustainability of our renewable resources (forests, agricultural lands, parks, water, and air) will help to ensure long term prosperity for the province. Wise use of our nonrenewable resources (oil, natural gas, and coal) will ensure that both current and future generations of Albertans benefit from their use. These indices for oil and gas, agriculture, and forestry give a sense of the general health of these industries in terms of their ability to maintain production as well as an indication of the sustainability of our resources.

Results

Alberta's timber harvest remains well below the annual allowable cut. Oil and gas reverves have been relatively stable over the past seven years. We have no update on the percentage of Alberta land base devoted to agriculture as the census information is not available.

Timber Sustainability Index

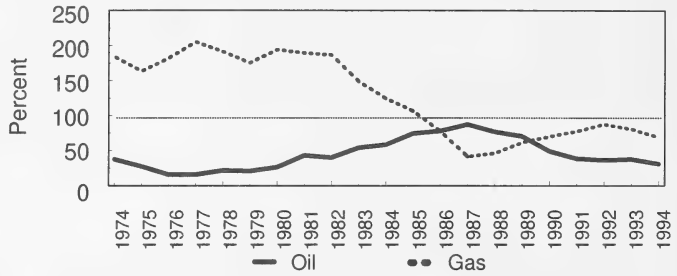
Timber Harvest as a Percentage of Annual Allowable Cut



Source: Alberta Environmental Protection, Natural Resources Canada

Oil and Gas Index

Percentage of Oil and Gas Production (5-year moving average) Replaced by Increased Reserves

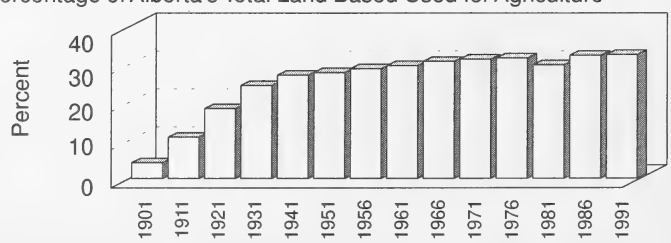


Notes: The decline in replacement of gas production is partially attributable to a move to the "just-in-time" supply position.
Oil reserves do not include the oil sands.

Source: Energy and Utilities Board

Agricultural Index

Percentage of Alberta's Total Land Based Used for Agriculture



Source: Statistics Canada, Census of Agriculture

Goal

Our goal is to ensure that Alberta's renewable resources are sustained and the high quality of Alberta's environment is maintained.

Measure

Measures the status of our stock of forest, oil, natural gas, and agricultural land and the effect that government policy has on the use of these resources. All measures also monitor the effectiveness of government policy in encouraging sustainable use of both renewable and nonrenewable natural resources.

Target

To ensure that Alberta's annual timber harvest is no greater than the annual allowable cut established by the government. To ensure that the oil and gas industry continues a reasonable level of exploration for new discoveries of oil and gas to replace existing production. And, to ensure that Alberta's agricultural farm land is preserved in the most productive state.

Resource Sustainability

Methodology

The forestry index compares the annual timber harvest with the annual allowable cut (AAC) of timber set by the province. The AAC is total amount of timber that could be physically harvested while still maintaining the health and integrity of the natural forest ecosystem and respecting other uses of the forest. This measure is not a measure of the health of the forest ecosystem, since it focuses only on the forest's timber resources.

The oil and gas index compares the production of oil and gas to the increase in reserves through exploration, new discoveries, and development activities. This index does not show oil sands (crude bitumen) reserves or production rates. Currently, the Energy and Utilities Board recognizes established recoverable oil sands reserves of 6.6 billion cubic meters. At current annual production rates of 25.2 million cubic meters, these reserves would last 260 years. Ultimate potential reserves are estimated to be about 49 billion cubic meters. Alberta's oil sands reserves are expected to be able to sustain increasing production rates well into the future as technology, economics and market circumstances change to permit the development of those potential reserves.

The agricultural index is simply an indication of the amount of Alberta's land base which is under agricultural production.

Strategies

- **Environmental Protection** ensures forests (including timber and wildlife) are managed and used in a sustainable manner.
- **Energy** works to ensure the maximization of long-term economic benefits from Alberta's oil, natural gas, and coal resources.
- **Agriculture, Food, and Rural Development** works with the agricultural community to ensure long term sustainability of Alberta's agri-food industry and the sustained productivity of farm land.

Standards

- Annual Allowable Cut (AAC) is the maximum allowable harvest of timber set by Environmental Protection. AAC is established considering factors such as forest inventory, growth rates, changes to reserved areas (e.g., provincial parks), regeneration success, natural mortality, and the impact of fire and insects. A ratio of timber harvest to AAC which exceeds 100% is unsustainable.

For additional measures, see the following ministries in Appendix 1:

Environmental Protection
Energy
Agriculture, Food and Rural Development

Water Quality

Water is one of the fundamental necessities of life. The quality of water can be evaluated on the basis of how it affects various uses including recreation, agriculture and the protection of aquatic life. The use of river water for drinking is not evaluated. Untreated water is not safe to drink, owing to the possible presence of natural disease-causing organisms. Further, a good or fair rating on the sustainability of aquatic life does not imply that the consumption of fish is necessarily safe. River water quality is used for this measure because the impact of human activities are generally more evident in rivers than lakes.

Water Quality Index: Suitability of Alberta's Major Rivers for Various Uses

Location	Recreation	Aquatic Life	Agriculture	Issues - Concerns
SMOKY/PEACE RIVER				
at Watimo	○	⊗	○	pulp mill & municipal effluents
at Ft Vermilion	◎	⊗	○	
ATHABASCA RIVER				
at Athabasca	⊗	○	○	pulp mill & municipal effluents
at Old Fort	⊗	⊗	⊗	
NORTH SASKATCHEWAN RIVER				
u/s Edmonton	○	○	○	municipal & non-point pollution
d/s Edmonton	●	⊗	⊗	sources
RED DEER RIVER				
u/s Red Deer	⊗	○	○	municipal & non-point pollution
d/s Red Deer	●	⊗	○	sources
BOW RIVER				
u/s Calgary	⊗	○	○	municipal & non-point pollution
d/s Calgary	●	⊗	○	sources; reduced flow due to water withdrawal
OLDMAN RIVER				
u/s Lethbridge	○	⊗	○	municipal & non-point pollution
d/s Lethbridge	●	⊗	○	sources

Based on percentage of compliant tests in 1993 — u/s = upstream of — d/s = downstream of

○ water quality is good:	very few tests not meeting guidelines	(100 - 96% compliance)
⊗ water quality is fair:	guidelines not met occasionally	(95 - 86% compliance)
○ water quality is poor:	guidelines often not met	(85 - 71% compliance)
● water quality is not acceptable for use:	guidelines frequently not met	(70% compliance & lower)

Source: Alberta Environmental Protection

Results

The quality of Alberta's rivers is generally good, but recreational use is impaired in some of the regions examined. Water quality tends to be poorer downstream of areas of significant urban, industrial or agricultural development than upstream.

Goal

Our goal is to ensure the high quality of Alberta's environment is maintained. Water quality is an essential component of a healthy environment.

Measure

The percentage of tests which comply with the appropriate Alberta Guidelines are the base measure of surface water quality. These results are used to evaluate the quality of water with respect to three categories: recreation, agriculture and the sustainability of aquatic life.

Target

To bring river water quality downstream of developed areas in line with upstream conditions.

Water Quality

Methodology

Throughout the year at monthly intervals samples are collected at two locations in each of the province's six major river systems. Nineteen water quality variables from each sample are compared with the Alberta Ambient Surface Water Quality Interim Guidelines (AWQG). These variables are placed into three groups which pertain to different river uses. One variable may be included in more than one specific use group (e.g., coliform bacteria are considered in both recreational and agricultural categories because they indicate health risks to swimmers as well as the suitability of water for crop irrigation and livestock watering).

Strategies

- **Environmental Protection** sets and enforces regulatory standards for point source discharges from industry and municipalities to protect all water uses. Non-point sources (such as runoff from urban and rural areas) are currently not regulated.
- **Environmental Protection** regulates the diversion of water to protect water conservation objectives.
- **Environmental Protection** regularly monitors the quality and quantity of surface water throughout the province to assess any long-term trends or changes that may be occurring.
- **Agriculture, Food and Rural Development** works with the agricultural community to minimize non-point source runoff.

Standards

- Surface water quality is evaluated against the Alberta Ambient Water Quality Interim Guidelines.
- Presently, the AWQG do not include guidelines for substances such as pesticides and trace organic contaminates, although these are monitored and guidelines are being developed. As the AWQG are expanded, the appearance of overall compliance may change.

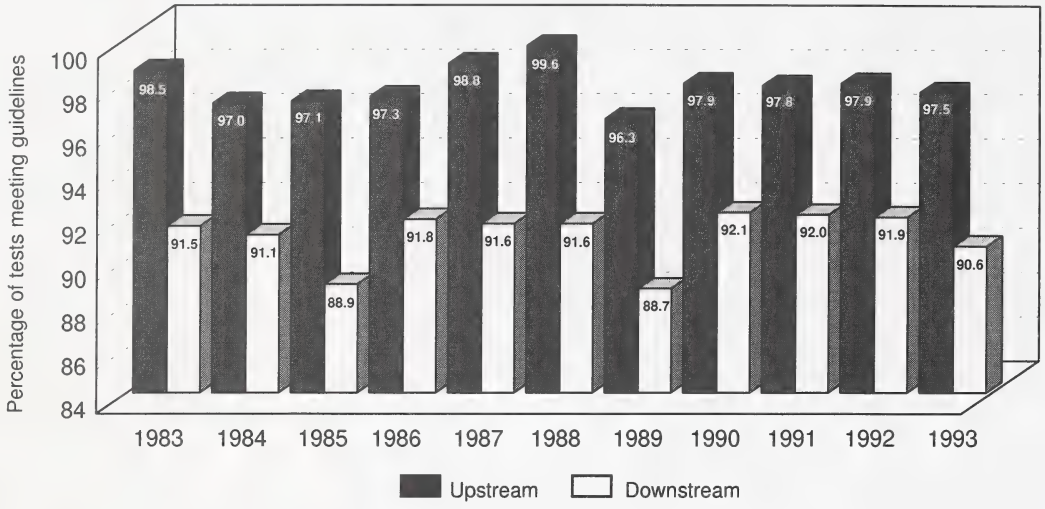
For additional measures, see the following ministries in Appendix 1:

Environmental Protection
Agriculture, Food and Rural Development

Water Quality - Supplemental Data

Some of the test results not meeting the AWQG may represent the effect of natural factors on water quality. For example, during the spring runoff, levels of total phosphorus may exceed the guideline values even in undisturbed areas. However, the AWQG are generally met more frequently upstream of developed areas than downstream. Compliance rates both upstream and downstream may vary from year to year. There does not seem to be an overall increase or decrease in the percentage of tests meeting guidelines in recent years.

Compliance Rates at Upstream and Downstream Sites for Four Major Alberta Rivers

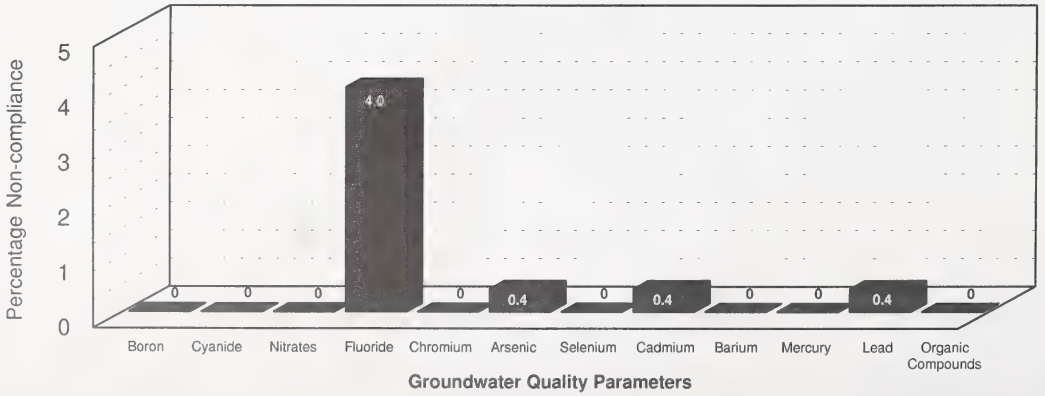


Source: Alberta Environmental Protection
Note: Based on data from the North Saskatchewan, Red Deer, Bow and Oldman Rivers
Shows the estimated human effects on river quality.

Groundwater Quality

Groundwater quality is measured in terms of the percentage of water samples from municipal wells which comply with Canadian Water Quality Guidelines. There are 223 municipal (public) potable groundwater supplies in Alberta. Municipalities are required to submit one analysis of groundwater quality per year to Environmental Protection. All cases where guidelines are not met are owing to naturally occuring geological conditions.

Percentage of Groundwater Samples (by Parameter) Not Meeting Canadian Drinking Water Quality Guidelines (1994)



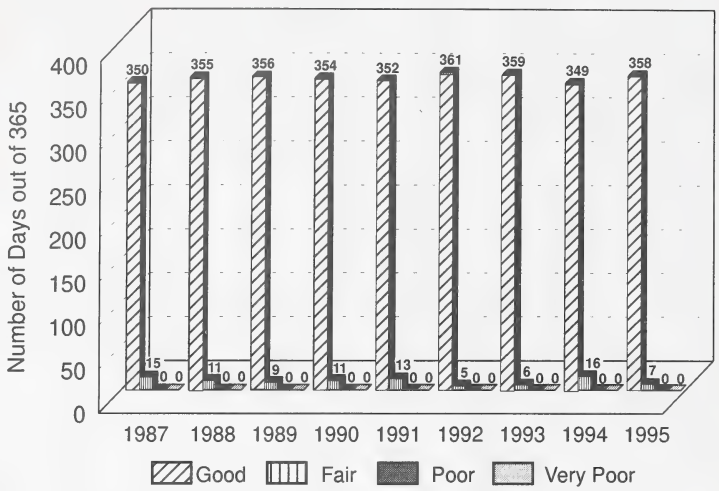
Source: Alberta Environmental Protection

Air Quality

One of Albertan's key concerns about the environment is the quality of the air we breathe. Ensuring the protection of Alberta's clean air is parmount to maintaining our health and quality of life. The air quality index provides an indication of the quality of air in Alberta throughout the year.

Number of Good, Fair, Poor or Very Poor Air Quality Days (out of 365 days)

- all eight locations in Edmonton, Calgary, Fort Saskatchewan and Fort McMurray



Source: Alberta Environmental Protection

Note: The frequency of **Very Poor** index levels ranges from 1 to 17 **hours** per year.

Results

While on average no days were rated poor or very poor, there were a number of hours rated poor or very poor. We will continue to strive for good or fair air quality at all times.

It should be noted that the Index of Quality of Air (IQUA) was modified in 1995. The dust and smoke portion of the index was modified to better represent the small particulate fraction. As a result of the change, the historical data series has been revised.

Goal

Our goal is to ensure a high quality of Alberta's environment is maintained, including our air.

Measure

The number of days that air is rated good, fair, poor or very poor using the guidelines established by Alberta's Environmental Protection and Enhancement Act (EPEA) and National Air Quality Objectives.

Target

To maintain air quality at levels which are considered "good" or "fair" at all times.

Air Quality

Methodology

The measure is based on data collected from eight monitoring stations across the province - three stations in both Edmonton and Calgary, and one station in both Fort Saskatchewan and Fort McMurray. These stations monitor air quality continuously. The data collected from these stations is used to calculate the Index of Quality of Air.

This index was developed by the federal and provincial governments to provide the public with a meaningful measure of outdoor air quality.

The IQUA converts concentrations of five major air pollutants to Good, Fair, Poor and Very Poor air quality categories. These categories are derived using formulas based on air quality guidelines of the Alberta EPEA and the National Air Quality Objectives.

The five pollutants monitored include carbon monoxide, the coefficient of haze (dust and smoke), nitrogen dioxide, ozone, and sulphur dioxide.

Strategies

- **Environmental Protection** constantly monitors air quality in key locations throughout the province to ensure that guidelines under the AEPA and standards in accordance with the National Air Quality Objectives are met.

- **Environmental Protection, Health** and **Energy** continue to work together, along with industry, through the Clean Air Strategic Alliance to ensure Alberta's air remains clean and healthy.

Standards

The following table provides a description of the effects on the environment, vegetation, human health, and visibility resulting from air quality ratings.

IQUA Rating	Effects
Good	No known harmful effects to soil, water, vegetation, animals, visibility or human health.
Fair	Adequate protection against harmful effects to soil, water, vegetation, animals, materials, visibility and human health.
Poor	Not all aspects of the environment are adequately protected from possible adverse effects. Long-term control action may be necessary, depending on the frequency, duration and circumstances of the readings.
Very Poor	In this range, further deterioration of air quality and continued high readings could pose a risk to pubic health.

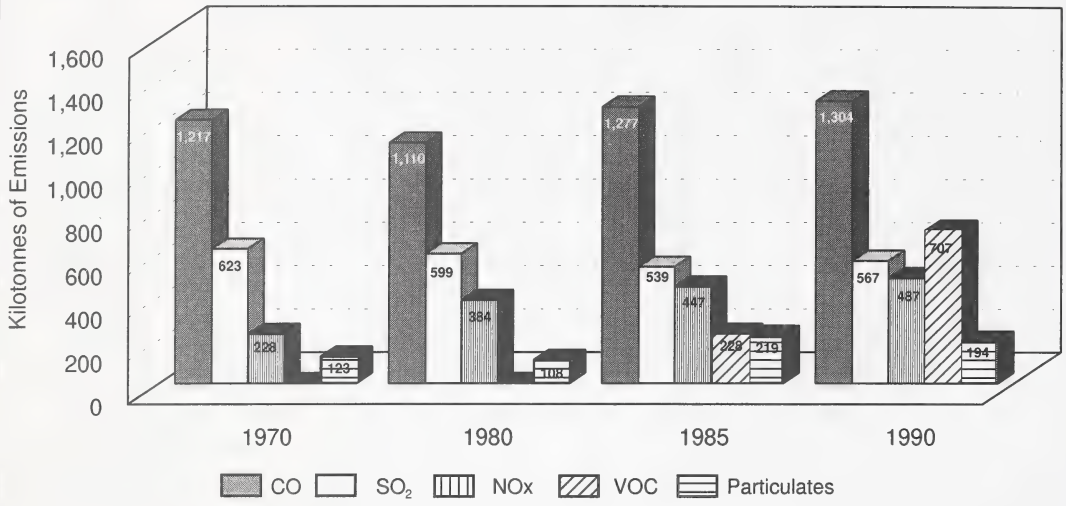
For additional measures, see the following ministries in Appendix 1:

Environmental Protection
Energy
Health

Air Quality - Supplemental Data

Emissions of air pollutants affect the overall ambient air quality in Alberta. These emissions are compiled by Environmental Protection from various sources including industries, fuel consumption by automobiles, waste incineration, and other miscellaneous sources. The most important pollutants are SO_2 (sulphur dioxide), CO (carbon monoxide), NOx (nitrogen oxides), volatile organic compounds (VOC), and particulates (including smoke and dust). The chart below shows the trend in total air pollutant emissions since 1970 throughout Alberta.

Total Air Pollutant Emissions in Alberta (1970 - 1990)

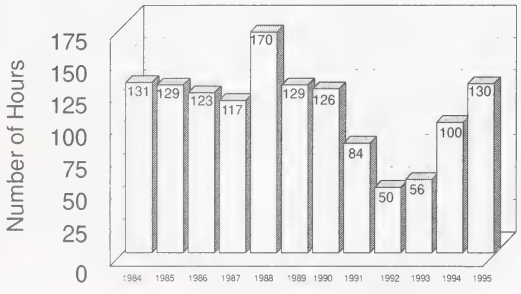


Note: VOC data not available before 1985

Source: Alberta Environmental Protection and Environment Canada

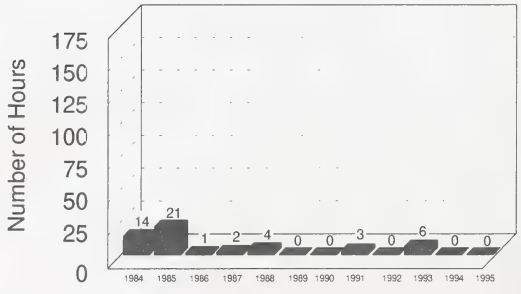
Number of Hours that Exceed the Guideline for Sulphur Dioxide

Industry Monitoring Stations



Number of Hours that Exceed the Guideline for Nitrogen Dioxide

Industry Monitoring Stations

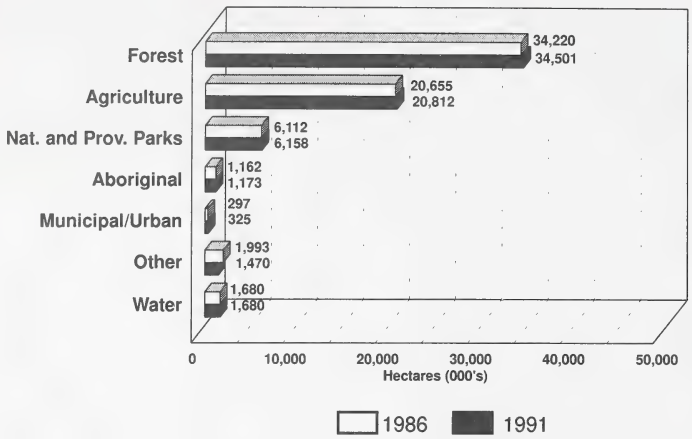


Source: Alberta Environmental Protection

Land Quality

The quality, health, and productivity of Alberta's land base is vital to our health and to our economy. Ensuring that land is used wisely for agriculture, forestry, industrial use, municipal development, recreation and tourism, or other uses is critical to our economic, social, and cultural well-being. The indicator provides information as to changes in land use.

Land Use Changes 1986 to 1991



Source: Forestry Canada, Alberta Agriculture, Food and Rural Development, Alberta Environmental Protection, Municipal Affairs.

Results

As shown on the above table, there has been very little change in the amount of land devoted to each of the categories between 1986 and 1991.

Goal

Our goal is to ensure the high quality of Alberta's environment is maintained, particularly the quality and productivity of our land resources.

Measure

The science of soil quality is just evolving. Eventually we will have a better idea as to changes in the quality and productivity of Alberta's land base. In the interim, changes in land use patterns across the province will be monitored.

The current measure compares land use changes between 1986 and 1991 amongst various land use categories.

Target

Because there is currently no soil quality data base, no target for land quality can be established at this time.

Land Quality

Methodology

There are currently no comprehensive Canadian nor Alberta indicators for land or soil quality. We are able to test soil quality, but there is no map of soil quality for the province.

In the absence of such indicators, we have decided to measure changes in land use.

Land use changes are shown in the following categories:

- forest
- agriculture
- national and provincial parks
- municipal/urban
- water
- other

Strategies

- **Environmental Protection** ensures the quality and wise use of forest and park land through its forest management and parks management programs. In addition, the Ministry regulates landfill and toxic waste disposal to ensure that land is not contaminated.

- **Agriculture, Food and Rural Development** works with the agricultural community to encourage conservation practices such as reduced traditional summerfallow, reduction of tillage, and increase in direct seeding.

- **Agriculture, Food and Rural Development** and **Environmental Protection** will be working jointly on the development of a measure to provide a basis for assessing land quality changes in the future.

For additional measures, see the following ministries in Appendix 1:

Environmental Protection
Agriculture, Food and Rural Development

Appendix 1 - Ministry Measures

This section contains the key performance measures for each ministry in the Alberta Government. The measures listed are those reported on in ministries' 1994-95 annual reports, and updated where possible based upon the ministry business plans contained in the government's 1996-97 budget document, *Agenda '96*. Ministries' 1995-96 annual reports are scheduled for release in September.

Each ministry has selected a set of key performance measures to track the success of its strategies in achieving its business plan goals. These same strategies also contribute to the success of the government in making progress towards the overall government business plan goals.

The following key ministry measures may provide additional detail on the core government measures and complement the information contained in the preceding section of this report. As the implementers of government policies and strategies designed to influence certain overall outcomes, ministry performance is integral to understanding overall government performance. The ministry measures also provide additional context for the core government measures, and add to our understanding of the factors influencing desired outcomes. They can also provide information on where specific improvements are necessary if we are to achieve our goals.

Readers are invited to refer to the respective ministry measures contained within ministry annual reports for more information on government performance.

Advanced Education and Career Development:

- Accessibility Indicator
- Public Satisfaction Index
- Employability Indicator
- Adult Literacy Indicator
- Research Excellence Indicator
- Annual Institutional Cost per Learner Indicator
- Annual Institutional Cost per Completer Indicator *(New)**

Agriculture, Food and Rural Development

- Increased Percentage of Canadian Farm Cash Receipts Accounted for by Alberta Farmers and Ranchers
- Reduced Direct Government Program Payments to Alberta Farmers Relative to Alberta Farm Cash Receipts
- Increased Value of Alberta's Food and Beverage Shipments
- Increased Value of Out-of-Province Shipments of Agriculture and Food Products
- Increased Contribution to Alberta's Gross Domestic Product
- Employment in Agriculture and Food
- Reduced Acreage of Traditional Summerfallow

Community Development

- Community Satisfaction with Assistance Received
- Percentage of Albertans Who Volunteer
- Attendance/Visits to Recreation/Cultural Activities/Events
- Percentage of Eligible Seniors Receiving the Alberta Seniors Benefit
- Satisfaction of Albertans' With Human Rights Protection
- Economic Impact of Heritage Facilities and Recreation and Cultural Programs
- Interdepartmental and Private Agency Referrals
- Youth Participation in Heritage Facilities and Recreation and Cultural Programs
- Community-based Heritage Preservation Initiatives Assisted
- Number of Persons Visiting Provincial Historical Sites and Museums

* New - introduced since 1995-96.

Appendix 1 - Ministry Measures

Community Development (con't)

Percentage of Visitors to Provincial Historic Sites and Museums Who Rate Their Overall and Learning Experience as Above Average or Excellent
Alberta Seniors Requiring Special Needs Allowance as a Percentage of All Seniors Eligible for the Alberta Seniors Benefit *(New)*
Ratio of Approved Special Needs Allowance Applications to the Number Approved Upon Appeal *(New)*
Percentage of Eligible Seniors Satisfied with Service Received *(New)*

Economic Development and Tourism

Job Creation
Growth in Wood, Paper and Allied Products Shipments
Growth in Manufacturing Shipments
Growth in Manufacturing Shipments - Advanced Technology Sectors
Growth in International Exports
Changes in Tourism Revenue Volume
Business Formations
Growth in Investment in Non-Energy Sectors *(New)*
Increase in Revenue to Alberta Companies from International Financial Institutions *(New)*
New Consortia Bidding on International Opportunities *(New)*
Growth in Number of Business Immigrants *(New)*

Education

Provincial Achievement Tests
Provincial Diploma Examinations
School Completion Rate
Student Satisfaction with Schooling
Parent Satisfaction with Child's Education
Satisfaction with Involvement in Decision Making
Spending on Instruction and Administration
Average Annual Equalized Mill Rates for Education
Satisfaction with Education Spending

Energy

Oil and Gas Discoveries Vs. Production
Oil and Gas Production in Alberta
Employment in the Upstream Oil and Gas Industry
Industry Licensing and Drilling Activity
Capital Spending in Alberta by the Upstream Oil and Gas Industry
Sale of Petroleum and Natural Gas Agreements
Value of Energy Exports from Alberta
Improvements in Compliance Levels of Problem Operators
Share of Canadian Petroleum Investments made in Alberta *(New)*
Research Investment in Energy-Related Projects *(New)*
Participation in the Voluntary Challenge and Registry Program and Reduction in Greenhouse Gas Emissions *(New)*
Protection of Public's Interest in its Resources *(New)*
Stakeholder Confidence in Regulatory System *(New)*

Appendix 1 - Ministry Measures

Environmental Protection

Timber Harvest vs. Reforested Area Meeting Provincial Reforestation Standards
Health of Known Fish and Wildlife Populations
Percent of Licensees Who Were Able to Receive the Quantity of Water Desired
Area Designated as Parks and Natural Reserves
Waste to Landfill Reduction from 1988 Levels
Biochemical Oxygen Demand (in kg) Released per Tonne of Pulp Produced
Spills and Accidental Releases Cleaned Up Annually and the Number of Incidents

Executive Council

Northern Alberta Development Council Client and Partner Satisfaction
Promotion of Northern Opportunities
Personnel Administration Office Client Satisfaction
Client Satisfaction with Human Resource Policy Framework
Integrated Human Resource Information Systems
Respected, Valued and Accountable Public Service
Employee Satisfaction *(New)*
Public Affairs Bureau Public Customer Satisfaction
Public Affairs Bureau Internal Government Client Satisfaction
Public Affairs Bureau Private Sector Supplier Satisfaction
Public Satisfaction with Government Information

Family and Social Services

Percentage of Day Care Centres Meeting Critical Government Standards
Percentage of Children who Stay Free from Injury or Neglect Following Ministry Intervention
Percentage of Children in the Custody of Child Welfare Whose Needs are Being Satisfactorily met in Their Placement
Proportion of Welfare Cases Remaining Closed After 12 Months
Percentage of Agencies Serving the Disabled That Meet Government Standards
Expected to Work Clients per 1,000 Working Age Population *(New)*
Proportion of Employment Initiative Graduates not Receiving Welfare Benefits 12 Months After Graduation or Placement *(New)*
Duration of Welfare for Clients Expected to Work *(New)*
Proportion of Single-Parent Welfare Cases with Child Support Orders or Agreements *(New)*

Federal and Intergovernmental Affairs

Client Satisfaction With Ministry Work

Health

Albertans' Ratings of the Health System
Albertans' Ratings of Access to Health Services
Albertans' Ratings of Quality of Care Received
Life Expectancy of Albertans at Birth
Percentage of Albertans Rating Their Health as "Excellent" or "Very Good"
Effectiveness of Alberta Alcohol and Drug Abuse Commission Services

Appendix 1 - Ministry Measures

Justice

- Public Satisfaction with the Job the Ministry is Doing
- Percentage of Albertans Who Have Reported Being a Victim of Crime in the Past Year
- Availability of Provincial Criminal Court for Trial in Calgary and Edmonton
- Number of Days Courts are Available for Resolution of Civil and Criminal Matters
- Number of Escapes from Secure Custody
- Per Diem Cost per Offender in Adult Custody
- Government Client Satisfaction with the Ministry's Provision of Legal Services
- Client Satisfaction with Services Provided by the Maintenance Enforcement Program
- Client Satisfaction with Services Provided by the Public Trustee's Office
- Number of Eligible People Receiving Legal Aid Services

Labour

- Person Days Lost as a Result of Labour Disputes and Work Stoppages
- Reduction in Workplace Lost Time Days as a Result of Injuries or Deaths
- Number of Workplace Changes Introduced Which Support Economic Development
- Client Satisfaction with Ministry Services
- Initiatives Which Improve Public Access to Services
- Number of Emerging Issues Identified and Addressed
- Number of New Partnerships Including Delegated Administration Organizations
- Number of Services Out Sourced or Privatized
- Reduction in Number of Repeat Offenders Under Employment Standards Legislation
- Achievement of Business Plan Financial Targets

Municipal Affairs

- Consumer Investigations and Client Satisfaction
- Property Assessments that Comply with Regulations and Meet Regulated Quality Standards and Guidelines
- Cost of Social Housing
- Housing Assistance Directed to Low Income, High Need Clients
- Customer Satisfaction with Registry Services
- Client Satisfaction With the Ministry's Role in the Local Government Restructuring Process *(New)*

Public Works, Supply and Services

- Operating Cost per Square Metre
- Reduction in Surplus Property Holdings
- Capital Development Projects
- Streamlined Operations
- Customer Satisfaction with Project Delivery Services *(New)*
- Customer Satisfaction with Procurement Services *(New)*
- Efficiency of Procurement Services *(New)*

Alberta Science and Research Authority

- Total Investment in Science and Research in Alberta
- Private Sector Investment in Science and Research in Alberta
- Level of Tradeable Goods and Services in Science and Technology Sectors
- Number of Joint Industry/Government Research and Development Projects
- Percentage of New Workforce Entering Science and Technology Careers
- Number of People Employed in Science and Research in Alberta

Appendix 1 - Ministry Measures

Transportation and Utilities

Road Safety (Highway Collision Rate per 100 Million Kilometres Travelled)
Primary Highway and Bridge Condition
Percentage of Inspected Commercial Vehicles Ordered Out of Service
Percentage of Vehicles Compliant with Dangerous Goods Regulations
Reduce Spending and Staffing Level
Effectiveness of Emergency and Disaster Response *(New)*
Reduction in Commercial Vehicle Overloads *(New)*
Level of Highway User Satisfaction *(New)*
Contractor Compliance with Ministry Standards for Primary Highway Maintenance *(New)*
Level of Net Revenue Contributed by the Alberta Gaming and Liquor Commission *(New)*
Level of Compliance by Licensees *(New)*

Treasury

Eliminate Alberta's Annual Deficit by 1996-97
Satisfaction of Albertans with the Government's Financial Reporting
Scope of Financial Management Decisions Within the Authority of Ministry Officials
Relative Provincial and Municipal Tax Load on Albertans
Cost to Government per $100 Revenue Collected
Cost to Government per Tax Return Assessed
Level of Satisfaction with the Equity and Fairness of the Tax System
Alberta's Cost of Borrowing Relative to Canada's in the Canadian Bond Market
Alberta's Investment Rates of Return
Condition of the Risk Management Fund
Cost to Financial Sector of Regulatory Compliance
Value of Market Capital Raised in Alberta

Appendix 2 - Societal Indicators

Societal indicators track important trends in Alberta society. These trends provide important information about our quality of life, and the way we live, work, and do business. They also provide information on our values and beliefs, the strength of our families, our sense of community, and the importance of our environment. Societal indicators reflect who and what we are as Albertans, and how we define quality of life.

Change has always been part of the Alberta landscape. Perhaps the most visible evidence of that is the weather. New weather patterns can radically alter the face of Alberta within a matter of hours, and just as quickly change back again.

Emerging trends in Alberta society can have similar effects, although not necessarily as dramatic. Alberta has grown by over a million people in the past quarter century, with an ever increasing percentage choosing to live in urban areas. Much of the population growth has been the result of new people moving into Alberta from other places, adding to the richness and diversity of Alberta society.

But with growth comes change. An in-migration of people indicates that Alberta is a desirable place to live. Alberta has a strong economy with positive job growth, low taxation, natural beauty, low cost of living, and quality government services. But growth can also have negative implications such as increasing urban sprawl, pollution, higher consumer prices, and greater demand upon available resources. More people can also increase the potential for human conflict in the form of crime, traffic congestion, and greater demand for government services, possibly leading to increased taxes. All of these factors can have both direct and indirect effects, and may generate requests for government intervention.

Keeping track of these societal trends will help identify potential future problems and prepare us for change. It can also help us understand why our programs are or are not effective, as environmental factors can enhance or negate the effects of government programs.

For example, public attitudes towards drinking and driving may contribute more to the reduction in alcohol related traffic accidents than Checkstop programs. It may also increase the success of substance abuse programs. Conversely, declining exercise participation rates can have detrimental effects upon general population health, increasing the demand for medical services. General aging of population will also result in increased demand for medical services, and may result in a shift in priority from children's programs to adult and elderly programs.

As a reflection of what Albertans value and believe, the societal indicators provide an important contextual framework for understanding the portfolio of core government and key ministry measures. Just as customs lack significance without a historical context, so too interpreting performance depends in part upon knowing what society's values are, and the key trends of change are that are shaping society.

Societal Indicators — Education

1. Student-Teacher Ratio

The ratio of total students to total full-time equivalent certified educational personnel in a jurisdiction. This ratio tends to understate classroom size as it includes administrative staff, librarians, consultants and other instructional support staff; however, it is the only nationally comparable indicator available.

	1992	1993	1994	1995
Alberta	**20.3**	**19.1**	**18.0**	
Canada	19.3	17.8	17.9	

Source: Statistics Canada - Education Quarterly Review (Cat. No. 81-003 - 1993, 1994) and Advanced Statistics of Education (Cat. No. 81-002 - 1992)

2. Median Years of Schooling

The median years of schooling defines the point at which half of the population age 15 and older has more schooling, and half has less. Total years of schooling includes elementary, secondary and post-secondary schooling. It is an indicator of the educational level of the population.

	1976	1981	1986	1991	1996
Alberta	**12.0**		**12.4**	**12.6**	
Canada	11.3		12.2	12.5	

Source: Statistics Canada - Education in Canada: A Statistical Review, Cat. No. 81-229

3. Annual Admissions to Post-Secondary Institutions

Shows the number of new full-time students entering post-secondary institutions each year. Data prior to 1991-92 are not comparable, given a change in the method of data collection.

	1991-92	1992-93	1993-94	1994-95 Estimate
Alberta	**25,813**	**26,815**	**25,728**	**25,587**

Source: Advanced Education and Career Development

This indicator will not appear in future Measuring Up reports as the information is available in Advanced Education and Career Development publications.

Societal Indicators — Education

4. Total Number of Post-Secondary Students

Tracks the number of full- and part-time students enrolled in credit programs at post-secondary institutions over time.

	1989-90	1990-91	1991-92	1992-93	1993-94 Prelim.	1994-95 Prelim.	1995-96 Estimate
Alberta (in thousands)	**159.9**	**156.8**	**157.4**	**162.0**	**161.4**	**159.7**	**160.6**

Source: Advanced Education and Career Development

This indicator will not appear in future Measuring Up reports as the information is available in Advanced Education and Career Development publications.

5. Number of Adult Students

Tracks the number of adults registered in non-credit courses offered through Community Adult Learning Councils and public post-secondary institutions.

	1981	1986	1990-91	1991-92	1992-93 Estimate	1993-94 Estimate
Alberta (in thousands)	**405**	**468**	**459**	**506**	**529**	**530**

Source: Advanced Education and Career Development

This indicator will not appear in future Measuring Up reports as the information is available in Advanced Education and Career Development publications.

6. Average Net Debt of Students Upon Graduation

Measures the average level of debt that students with government student loans have upon graduation, after any applicable loan remission.

	1991	1992	1993	1994	1995
Alberta (in dollars)	**7,546**	**8,246**	**8,845**	**9,045**	**10,084**

Source: Advanced Education and Career Development - Learner Assistance Division

This indicator will not appear in future Measuring Up reports as the information is available in Advanced Education and Career Development publications.

Societal Indicators — Health and Wellness

7. Doctors per 1,000 Population vs. National Average

Monitors the number of doctors per 1,000 population in Alberta compared to the national average.

	1981	1986	1991	1992	1993	1994
Alberta	**1.3**	**1.5**	**1.7**	**1.7**	**1.6**	**1.6**
Canada	1.5	1.7	1.8	1.9		

Source: Statistics Canada Health Indicators, 1994 and Alberta Health

8. Infant Mortality (per 1,000 Live Births)

This indicator has moved to the supplemental information section of the *Life Expectancy at Birth* core measure.

9. Availability of Health Care

Reports the public's rating of the availability of health care services in their community.

	Excellent	Good	Fair	Poor
1994 (%)	24.0	49.5	19.8	6.8
1995 (%)	19.7	55.5	18.7	6.1

Source: Alberta Health Survey - 1995, 1996

10. Exercise and Recreation Participation Rate

Measures the exercise and participation rate of Albertans, and compares Albertans' exercise rate to that of Canadians in the other nine provinces. Data in prior years are not comparable owing to a change in survey methodology.

	Active	Moderate	Inactive
Alberta - 1994 (%)	**23**	**24**	**53**
Canada - 1994 (%)	20	22	58

Source: Statistics Canada, National Population Health Survey, 1994

Societal Indicators — Health and Wellness

11. Day Surgeries as a Percentage of All Surgeries at Hospitals

Last year's report proposed as an indicator the percentage of active treatments performed in the community versus a hospital setting; however, such information is not available. Instead, we will measure the percentage of surgeries performed in a hospital on an out-patient basis.

	1993-94	1994-95
Day Surgery (%)	**69**	**72**

Source: Alberta Health

12. Number of Home Care Clients

One indicator of the health care system's efforts to shift from a hospital-based to a more community-based system.

	1991	1992	1993	1994
Home Care Clients	**46,000**	**53,000**	**56,000**	**59,000**

Source: Alberta Health

13. Alcohol and Tobacco Use

Indicates the incidence of smoking and drinking by Canadians as a percentage of the population. A smoker is defined as a person having at least one cigarette per day. A drinker is defined as a person having at least one drink per month.

	1985	1991	1994
Drinkers as a Percentage of Population			
Canada	48	41	62
Quebec	47	46	65
Ontario	50	38	62
Alberta	**48**	**42**	**59**
British Columbia	51	46	63
Smokers as a Percentage of Population			
Canada	23	19	20
Quebec	27	22	24
Ontario	21	19	19
Alberta	**23**	**20**	**18**
British Columbia	20	16	16

Source: Statistics Canada, Family and Social Statistics Division, General Social Survey

Societal Indicators — Health and Wellness

14. Readmissions to Hospitals (percentage of all Admissions)

Will indicate the effectiveness of the hospital/home care system.

	1992-93	1993-94	1994-95
Readmissions to Hospital (%)	**7.7**	**7.9**	

Source: Alberta Health

15. Percentage of Disabled in Institutional Care

Measures the incidence of institutionalization of the disabled (age 15+) in Alberta and other provinces.

	1986	1991	1996
Alberta (%)	**8.2**	**6.0**	
Canada (%)	8.1	6.9	

Source: Statistics Canada, Health and Activity Limitation Survey, Cat. No. 82-555

16. Percentage of Seniors in Institutional Care

Will monitor the independence of seniors by measuring their ability to live independently.

	1991	1996
Alberta (%)	**7.7**	
Canada (%)	6.3	

Source: Statistics Canada, Cat. No. 93-311

17. Number of Reported Deaths from Cancer (per 100,000 Population)

This indicator has moved to the supplemental information section of the *Life Expectancy at Birth* core measure.

Societal Indicators — Social Investment

18. Suicide Rate

(per 100,000 Population)

This measure tracks the Alberta suicide rate compared to the national average, and indicates the general well-being of Albertans and their perception of their own quality of life.

	1976	1981	1986	1991	1992	1993	1994
Alberta	**17**	**15**	**17**	**18**	**18**	**15**	
Canada	12	14	14	13	13	13	

Source: Statistics Canada, Canadian Centre for Health Information

19. Child Abuse

Will compare child abuse in Alberta to that of other jurisdictions.

Alberta	no data base currently exists						
Canada							

20. Spousal Abuse

Measures if women have ever experienced an incident of physical or sexual abuse at the hands of their marital partner.

	1993
Alberta (%)	**34**
Canada (%)	29

Source: Statistics Canada, Violence Against Women Survey - 1993

Societal Indicators — Social Investment

21. Percentage of Single Parent Families vs. National Average

The number of single-parent families in each census year is divided by the total number of families in each category in 1990. The change in percentage of single-parent families indicates the general stability of family units in Alberta.

	1986	1991	1996
Alberta (%)	**6.8**	**7.9**	
Canada (%)	6.2	7.3	

Source: Statistics Canada Cat. No. 93-336

22. Affordable Housing

Canada Mortgage and Housing Corporation (CMHC) determines what the average cost of a rental unit is for each family type. The number of households classified as able to afford adequate and suitable housing is expressed as a percentage of all Alberta households. Affordability is defined by CMHC as paying less than 30% of income for housing (including taxes and utilities).

	1986	1991	1996
Percentage of homeowners spending 30% or less of income			
Seniors	96	91	
Families	96	99	
Singles	93	85	
Percentage of renters spending 30% or less of income			
Seniors	69	66	
Families	79	74	
Singles	79	70	

	Alberta	Canada
Percentage of low income homeowners spending 30% or less of income (1991) on housing		
Seniors	**77**	70
Families	**31**	32
Singles	**39**	38
Percentage of low income renters spending 30% or less of income (1991) on housing		
Seniors	**47**	37
Families	**18**	17
Singles	**21**	20

Source: Statistics Canada and Canada Mortgage and Housing Corporation

Societal Indicators — Human Capital

23. Alberta Labour Force Participation Rate

The Alberta labour force participation rate indicates the percentage of the population 15 years and older who are either employed or are looking for work.

	1976	1981	1986	1991	1992	1993	1994	1995
Alberta	**67.2**	**72.6**	**72.6**	**72.6**	**72.0**	**71.5**	**71.8**	**72.0**
Canada	61.5	65.3	66.3	66.7	65.9	65.5	65.3	64.8

Source: Statistics Canada - Labour Force Survey

24. Youth Unemployment Rate

This indicator has moved to the supplemental information section of the *Educational Attainment* core measure.

25. Employment Opportunities

The Help Wanted Index is an index of the volume of job advertisements, using 1991 as a base year. The index is only one measure of the job opportunities available to Albertans and Canadians.

	1981	1986	1991	1992	1993	1994	1995
Canada	148	152	100	86	87	97	96
Alberta	**246**	**106**	**100**	**76**	**80**	**89**	**79**
Ontario	154	201	100	87	86	101	102
British Columbia	129	86	100	87	84	86	75

Source: Statistics Canada, Demography Division

26. Percentage of Disabled Who are Employed

Will track the number of disabled individuals age 15-64 and living in households who are employed for any number of hours per week.

	1991	1996
Alberta (%)	**57.6**	
Canada (%)	48.2	

Source: Statistics Canada, Cat. No. 82-554

27. Rate of Underemployment

Compares the percentage of part-time employees under the age of 25, and for all ages, who want to work full-time but can only find part-time work.

Under 25

	1976	1981	1986	1991	1992	1993	1994	1995
Alberta (%)	**7.6**	**8.2**	**22.3**	**18.1**	**23.5`**	**25.7**	**23.3**	**25.9**
Canada (%)	12.8	20.1	25.4	20.7	25.2	26.4	26.1	26.5

Source: Statistics Canada

All Ages

	1976	1981	1986	1991	1992	1993	1994	1995
Alberta (%)	**6.2**	**6.1**	**21.7**	**18.7**	**24.6**	**28.3**	**27.8**	**26.7**
Canada (%)	10.6	16.3	25.9	25.1	29.5	32.2	31.8	31.9

Source: Statistics Canada

Societal Indicators — Economic Performance

28. Growth in Personal Disposable Income

This indicator has moved to the supplemental information section of the *Family Income Distribution* core measure.

29. Growth in Corporate Profits

The competiveness of Alberta businesses is indicated by the annual percentage change in corporate profits over time, compared to that of other provinces. The year to year change in profits is divided by the amount of profits in the previous year.

	1976	1981	1986	1991	1992	1993	1994	1995
Alberta (% change)	**7.4**	**-9.3**	**-53.6**	**-32.0**	**1.4**	**34.4**	**37.0**	**7.1**
Canada (% change)	4.6	-5.4	-8.4	-22.3	0.7	20.2	36.1	14.8

Source: Statistics Canada, National Accounts and Environmental Division

30. Provincial Tax Revenue as a Percentage of GDP

Compares provincial tax revenue (personal, corporate, sales, fuel and alcohol/tobacco taxes only) as a percentage of GDP over time.

	1986	1991	1992	1993	1994	1995
Ontario (%)	9.9	10.4	10.0	10.6	10.6	
Sask. (%)	8.8	10.6	12.4	13.0	12.0	
Alberta (%)	**4.6**	**7.1**	**6.6**	**6.6**	**6.6**	
British Columbia (%)	9.5	10.3	10.2	11.7	11.3	

Source: Federal Department of Finance and Alberta Treasury

Societal Indicators — Economic Performance

31. Cost Effective Transportation

The measure compares the level of user charges across the provinces and territories for two types of vehicles. The first is a 1996 Ford Taurus. The measure assumes the car is driven 17,500 km per year and assumes a 50/50 split between city and highway driving. The second is a 38,000 kg, five-axle tractor semi-trailer truck. The measure assumes the truck is driven 150,000 km per year. User charges include direct government charges such as operator licenses, vehicle registrations and fuel taxes.

Alberta	1990	1991	1992	1993	1994	1995	1996
Annual Private Vehicle User Charges ($)	174	207	208	209	208	208	208
Annual Truck User Charges ($)	6,128	7,491	7,787	7,788	7,789	7,789	7,789

Annual Private Vehicle User Charges by Province/Territory - 1996 ($)

B.C.	Alta.	Sask.	Man.	Ont.	Que.	N.B.	N.S.	P.E.I.	Nfld.	Yuk.	N.W.T.
242	**208**	335	289	323	343	259	286	280	418	143	230

Annual Truck User Charges by Province/Territory - 1996 ($)

B.C.	Alta.	Sask.	Man.	Ont.	Que.	N.B.	N.S.	P.E.I.	Nfld.	Yuk.	N.W.T.
9,736	**7,789**	12,555	9,572	11,314	13,051	11,195	11,843	9,768	12,937	5,872	7,157

Source: Alberta Transportation and Utilities

32. Cost Effective Utilities

The measure compares the residential, commercial and industrial cost of natural gas and electricity. It uses the cost per 100 cubic metres for natural gas. For electricity it assumes 600 kilowatt hours for residential, 100 kilowatt demand for commercial (50% load factor and 90% power factor) and 3,000 kilowatt demand for industrial (70% load factor and 90% power factor).

Natural Gas - 1995 (Cost per 100 cu. m.)

	Residential	Commercial	Industrial
Alberta	**12.82**	**9.59**	**6.12**
Canada	19.42	16.16	8.78

Average Monthly Electric Bill - 1995 ($)

	Residential	Commercial	Industrial
Alberta	**54**	**2,340**	**64,971**
Canada	57	2,547	76,392

Source: Alberta Energy

Societal Indicators — Economic Performance

33. New Investment Growth

Tracks new investment in capital in Alberta for the energy and non-energy sectors.

Alberta	1986	1991	1992	1993	1994	1995 Prelim.
Energy ($ billions)	**3.9**	**4.5**	**3.3**	**5.2**	**8.3**	**6.9**
Non-energy ($ billions)	4.8	6.5	6.7	6.7	5.9	5.9

Source: Statistics Canada and Alberta Economic Development and Tourism

34. Liabilities from Business Bankruptcies

The value of business bankruptcies is presented as a proxy until data is available to track net business formations (a better measure of the health of Alberta's business climate). Economic Development and Tourism and Treasury are developing a registry of Alberta businesses which will be used to track new business formations.

	1981	1986	1991	1992	1993	1994	1995
Alberta ($000)	**89,367**	**368,322**	**250,929**	**390,560**	**317,686**	**255,164**	**349,494**

Source: Statistics Canada, Matrix 6976, Series D45155

35. Level of Air Emissions

(Kilotonnes per 1,000 sq. km.)

The stress applied to the environment from the emission of substances into the air depends upon both the sensitivity of the receptor or people affected, and the concentration of the substances. Neither of these factors is reflected in the measure of total mass pollution emitted.

National air emissions inventories are conducted every five years and measure emissions of total particulate matter (TPM), sulphur dioxide (SO2), oxides of nitrogen (NOx), carbon monoxide (CO), and volatile organic compounds (VOC). The inventory of emissions are taken from various point sources including industries, fuel combustion from plants, fuel combustion from cars, waste incineration and miscellaneous sources.

	1970	1980	1985	1990	1995
Alberta	**0.193**	**0.169**	**0.343**	**0.304**	
United States	2.073	0.989	0.857	0.808	
United Kingdom	2.772	1.483	1.443	1.252	

Source: OECD Environmental Data Compendium, 1993
Environment Canada, Canadian Emissions Inventory of Common Air Contaminants, 1990-1995
Environment Canada, Emissions and Trends of Common Air Contaminants in Canada, 1970-1980
Alberta Environmental Protection

36. Reduction of Waste to Landfills

Measures waste disposal per capita each year compared with the equivalent rate in 1988. Reduction of waste to landfills is a comprehensive indicator of efforts to reduce waste. Maine is presented as it was the best performing U.S. state in 1992.

	Alberta (1994)	**Canada (1992)**	**Maine (1992)**
Waste Reduction from 1988 Level (%)	**21.5**	**13.1**	**23.0**

Source: Municipal and Regional Waste Management Authorities

37. Health of Fish and Wildlife Populations (1990)

A survey of the population status of fish and wildlife is conducted every five years. Based on the 1990 suvey, there are 535 known species of fish and wildlife. The health of Alberta's fish and wildilfe populations is indicated by the percentage of species that are at serious risk.

	Serious Risk (endangered)	**Vulnerable/ Sensitive** (at some risk or need special management)	**Undetermined** (not considered at risk, more study needed)	**Healthy** (not considered at risk)
Alberta (%)	**5**	**20**	**20**	**55**

Source: Alberta Environmental Protection, Natural Resources Services, Fish and Wildlife

Societal Indicators — Research and Development

38. Private Sector Spending on R&D

This indicator has moved to the supplemental data section of the *Spending on Research and Development* core measure.

39. Research and Development Spending as a Percentage of GDP

Profiles the level of combined gross private and public spending on research and development as a percentage of provincial GDP.

	1990	1991	1992	1993	1994
Alberta	**1.04**	**1.05**	**1.00**	**0.99**	
Canada	1.44	1.50	1.54	1.58	
Ontario	1.82	1.88	1.87	2.00	
Quebec	1.54	1.71	1.79	1.84	
British Columbia	0.84	0.82	0.84	0.90	

Source: Statistics Canada, Cat. No. 88-001

Societal Indicators — Law and Order

40. Prisoners per 1,000 Population

The number of people incarcerated in provincial jails (from Canadian Centre for Justice Statistics), is expressed as a rate per 1,000 persons (based on Statistics Canada population data).

	1981	1986	1991	1992	1993	1994	1995
Alberta	**0.85**	**0.94**	**0.91**	**0.93**	**0.98**	**1.02**	**1.00**
Canada	0.56	0.62	0.65	0.67	0.68	0.68	0.68

Source: Canadian Centre for Justice Statistics and Statistics Canada

41. Repeat Offenders

Will measure the number of repeat offenders over time to indicate how successful our society is at deterring criminal activity and rehabilitating offenders.

Alberta	no data base currently exists						
Canada							

42. Size of Provincial Government Employment Relative to Other Jurisdictions

Compares the number of civil servants per 1,000 population in each jurisdiction. Also reports the number of Alberta civil servants.

Civil Servants per 1,000 Population (1994)

B.C.	Alta.	Sask.	Man.	Ont.	Que.	N.B.	N.S.	P.E.I.	Nfld.
15.1	**16.4**	20.4	18.1	12.0	17.9	39.8	15.5	36.0	25.3

	1991	1992	1993	1994	1995
Number of Alberta Government Employees	52,999	51,514	48,649	44,522	

Note: Includes Departments and Special Funds
Source: Statistics Canada, Public Institutions Division

43. Percentage of Budget for Which Goals and Measures Have Been Established

Will reflect the government's efforts to be accountable to Albertans for how their money is being spent.

Alberta (%)	data base under development						

Societal Indicators — Demographics

44. Population Growth

Annual population growth for Canada and the provinces.

	1976	1981	1986	1991	1992	1993	1994	1995
Alberta (% change)	**3.3**	**4.7**	**1.1**	**1.8**	**1.7**	**1.5**	**1.1**	**1.2**
Canada (% change)	1.3	1.2	1.0	1.2	1.5	1.4	1.1	1.2

	B.C.	Alta.	Sask.	Man.	Ont.	Que.	Other
Population as a percentage of Canada (1995)	12.7	**9.3**	3.4	3.8	37.5	24.8	8.5

Source: Statistics Canada - Demography Division

45. Net Migration Into Alberta

Migration is a permanent change in residence from one province to another. Net migration is the difference between in-migration and out-migration. It combines the flow of people between the province with emigration and immigration.

	1976	1981	1986	1991	1992	1993	1994	1995
Alberta (change)	**38,300**	**62,958**	**1,815**	**18,471**	**19,521**	**13,424**	**5,678**	**6,073**

Net Migration Estimates - 1995

B.C.	Alta.	Sask.	Man.	Ont.	Que.	N.B.	N.S.	P.E.I.	Nfld.	Yuk.	N.W.T.
76,067	**6,073**	-3,088	-113	104,900	9,553	-1,082	-260	980	-8,280	155	-219

Source: Statistics Canada, Demography Division

Societal Indicators — Demographics

46. Median Age of Population

Represents the age at which half of the population is above and half is below. This provides an indication of the aging of the population.

	1976	1981	1986	1991	1992	1993	1994	1995
Alberta	**26.1**	**26.8**	**29.0**	**31.1**	**31.5**	**32.0**	**32.4**	**32.9**

Median Age of Population - 1995

Canada	B.C.	Alta.	Sask.	Man.	Ont.	Que.	N.B.	N.S.	P.E.I.	Nfld.	Yuk.	N.W.T.
34.8	35.3	**32.9**	34.0	34.1	34.7	35.7	34.7	35.1	34.0	33.3	32.3	25.7

Source: Statistics Canada, Demography Division

47. Percentage of Population Over 65

This measure is a further indication of aging of the provincial population.

	1976	1981	1986	1991	1992	1993	1994	1995
Alberta	**7.5**	**7.2**	**8.0**	**9.0**	**9.1**	**9.3**	**9.5**	**9.7**

Percentage of Population Over 65 - 1995

Canada	B.C.	Alta.	Sask.	Man.	Ont.	Que.	N.B.	N.S.	P.E.I.	Nfld.	Yuk.	N.W.T.
12.0	12.7	**9.7**	14.5	13.6	12.1	11.9	12.5	12.7	12.9	10.3	4.7	2.9

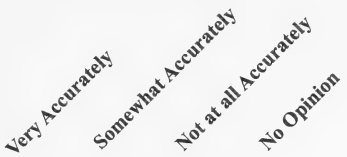
Source: Statistics Canada, Demography Division

Feedback Questionnaire

The purpose of measuring performance and making these reports public is to give Albertans useful information about government's performance in core areas. By focusing on priorities, setting targets for performance and measuring progress, we can make sure that we are getting the best results for the dollars we spend. Overall, the purpose is to keep improving services for Albertans.

Given that purpose for the *Measuring Up* report:

1. How accurately do the core measures assess the performance of government?



2. Is government measuring the right things?

❑ Yes ❑ No

If no, what additional top three measures should government consider?

1._____

2._____

3._____

What three measures would you take out?

1._____

2._____

3._____

Thank you for your feedback.
Please return this questionnaire by August 30, 1996 to:

Alberta Treasury
Room 305, Terrace Building
9515 - 107 Street
Edmonton, Alberta T5K 2C3

or

FAX to:
(403) 427-4695
Monday through Friday
between 8:15 a.m. and 4:30 p.m.

3. What specific information should be included to make this report more useful to you?

_____

_____

4. What measures would you like more information on?
Please give your top three.

1._____

2._____

3._____

National Library of Canada
Bibliothèque nationale du Canada
3 3286 51327 9345

Printed on Recycled Paper